TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

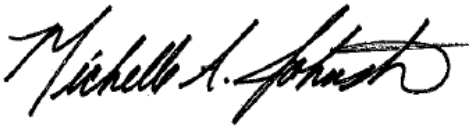
ANALYTICAL REPORT

Job Number: 280-76048-2

Job Description: Fort Wingate, New Mexico

For:
Sundance Consulting, Inc
6700 Jefferson Blvd NE
Albuquerque, NM 87109

Attention: JohnDavid Nance



Approved for release.
Michelle A Johnston
Project Manager II
11/15/2015 12:52 PM

Michelle A Johnston, Project Manager II
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11/15/2015

cc: Elizabeth Farias
Jim Lockhart
Ben Moayyad
Mr. Doug Scott

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE
Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-76048-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

The following report contains the analytical results for one sample received 10/28/2015, according to documented sample acceptance procedures. The sample was received at a temperature of 0.5°C.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-76048-1).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Sample FW102015EQU001 (280-76048-2) was analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The sample was prepared on 10/29/2015 and analyzed on 11/07/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

MS/MSD analyses for prep batch 280-302918 were not requested.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 300666

Lab Sample ID: ICIS 280-300666/3 Client Sample ID:

Date Analyzed: 10/13/15 11:23 Lab File ID: G6_20497.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.29	Split Peak	kiekeld	10/23/15 06:31

Lab Sample ID: STD050 280-300666/7 IC Client Sample ID:

Date Analyzed: 10/13/15 13:06 Lab File ID: G6_20501.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.28	Split Peak	kiekeld	10/23/15 06:46

Lab Sample ID: STD120 280-300666/8 IC Client Sample ID:

Date Analyzed: 10/13/15 13:32 Lab File ID: G6_20502.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.30	Split Peak	kiekeld	10/23/15 06:47

Lab Sample ID: STD160 280-300666/9 IC Client Sample ID:

Date Analyzed: 10/13/15 13:58 Lab File ID: G6_20503.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.30	Split Peak	kiekeld	10/23/15 06:49

Lab Sample ID: STD200 280-300666/10 IC Client Sample ID:

Date Analyzed: 10/13/15 14:24 Lab File ID: G6_20504.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.31	Split Peak	kiekeld	10/23/15 06:51
Indeno[1,2,3-cd]pyrene	20.34	Shouldering	kiekeld	10/23/15 06:51

SAMPLE SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-76048-2	FW102015EQU001	Water	10/27/2015 0940	10/28/2015 0945

EXECUTIVE SUMMARY - Detections

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method

No Detections

METHOD SUMMARY

Client: Sundance Consulting, Inc Job Number: 280-76048-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270D	
Liquid-Liquid Extraction (Continuous)	TAL DEN		SW846 3520C

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Method	Analyst	Analyst ID
SW846 8270D	Hoefler, Alexandra F	AFH

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Client Sample ID: **FW102015EQU001**

Lab Sample ID: 280-76048-2
Client Matrix: Water

Date Sampled: 10/27/2015 0940
Date Received: 10/28/2015 0945

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-302954	Instrument ID:	SMS_G6
Prep Method:	3520C	Prep Batch:	280-302918	Lab File ID:	G6_20946.D
Dilution:	1.0			Initial Weight/Volume:	999.3 mL
Analysis Date:	11/07/2015 0152			Final Weight/Volume:	1 mL
Prep Date:	10/29/2015 1715			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	77		42 - 131
2-Fluorobiphenyl	77		48 - 120
2-Fluorophenol (Surr)	78		41 - 120
Nitrobenzene-d5 (Surr)	80		42 - 120
Phenol-d5 (Surr)	74		45 - 124
Terphenyl-d14 (Surr)	77		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
280-76048-2	FW102015EQU001	78	74	80	77	77	77
MB 280-302918/1-A		83	84	84	78	85	80
LCS 280-302918/2-A		80	82	84	81	89	81

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Method Blank - Batch: 280-302918

Method: 8270D
Preparation: 3520C

Lab Sample ID:	MB 280-302918/1-A	Analysis Batch:	280-302954	Instrument ID:	SMS_G6
Client Matrix:	Water	Prep Batch:	280-302918	Lab File ID:	G6_20932.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/06/2015 1955	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	10/29/2015 1715			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Caprolactam	2.5	U	2.5	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	85	42 - 131
2-Fluorobiphenyl	78	48 - 120
2-Fluorophenol (Surr)	83	41 - 120
Nitrobenzene-d5 (Surr)	84	42 - 120
Phenol-d5 (Surr)	84	45 - 124
Terphenyl-d14 (Surr)	80	20 - 130

Lab Control Sample - Batch: 280-302918

Method: 8270D
Preparation: 3520C

Lab Sample ID:	LCS 280-302918/2-A	Analysis Batch:	280-302954	Instrument ID:	SMS_G6
Client Matrix:	Water	Prep Batch:	280-302918	Lab File ID:	G6_20931.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/06/2015 1929	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	10/29/2015 1715			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Caprolactam	80.0	70.7	88	46 - 143	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	89	42 - 131
2-Fluorobiphenyl	81	48 - 120
2-Fluorophenol (Surr)	80	41 - 120
Nitrobenzene-d5 (Surr)	84	42 - 120
Phenol-d5 (Surr)	82	45 - 124
Terphenyl-d14 (Surr)	81	20 - 130

DATA REPORTING QUALIFIERS

Client: Sundance Consulting, Inc Job Number: 280-76048-2

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

Client: Sundance Consulting, Inc Job Number: 280-76048-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-302918					
LCS 280-302918/2-A	Lab Control Sample	T	Water	3520C	
MB 280-302918/1-A	Method Blank	T	Water	3520C	
280-76048-2	FW102015EQU001	T	Water	3520C	
Analysis Batch:280-302954					
LCS 280-302918/2-A	Lab Control Sample	T	Water	8270D	280-302918
MB 280-302918/1-A	Method Blank	T	Water	8270D	280-302918
280-76048-2	FW102015EQU001	T	Water	8270D	280-302918

Report Basis
T = Total

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Laboratory Chronicle

Lab ID: 280-76048-2 **Client ID: FW102015EQU001**

Sample Date/Time: 10/27/2015 09:40 Received Date/Time: 10/28/2015 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76048-D-2-B		280-302954	280-302918	10/29/2015 17:15	1	TAL DEN	JRK
A:8270D	280-76048-D-2-B		280-302954	280-302918	11/07/2015 01:52	1	TAL DEN	AFH

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	MB 280-302918/1-A		280-302954	280-302918	10/29/2015 17:15	1	TAL DEN	JRK
A:8270D	MB 280-302918/1-A		280-302954	280-302918	11/06/2015 19:55	1	TAL DEN	AFH

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	LCS 280-302918/2-A		280-302954	280-302918	10/29/2015 17:15	1	TAL DEN	JRK
A:8270D	LCS 280-302918/2-A		280-302954	280-302918	11/06/2015 19:29	1	TAL DEN	AFH

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8270_LCS_Main_00026	08/31/16	09/25/15	P&T Methanol, Lot MethanolP&T_001122	500 mL	MS-569729_00035	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00036	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00037	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00038	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00039	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00044	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00045	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00046	5 mL	1,1'-Biphenyl	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569731_00015	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00016	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00017	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00018	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
.MS-569729_00035	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00036	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00037	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00038	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00039	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00044	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00045	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00046	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569731_00015	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00016	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00017	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00018	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
8270_LCS_Supp_00134	11/02/15	10/26/15	P&T Methanol, Lot MethanolP&T_00126	50 mL	MS-569730_00022	2 mL	3,3'-Dichlorobenzidine	80 ug/mL
							Benzidine	80 ug/mL
					MS-569732_00027	2 mL	Atrazine	80 ug/mL
							Benzaldehyde	80 ug/mL
							Caprolactam	80 ug/mL
.MS-569730_00022	01/31/17		Restek, Lot A0112567		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
.MS-569732_00027	08/28/16		Restek, Lot A0108989		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
8270Surrogate_00086	10/16/16	10/16/15	ACETONE, Lot Acetone_000137	1000 mL	8270SurStkHL_00117	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00118	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00131	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00133	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
.8270SurStkHL_00117	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00118	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00131	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00133	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
MS-FAMSSV_100_00013	12/08/15	03/13/15	Methylene Chloride, Lot 87975	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA004_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	10 uL	Benzoic acid	8 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	4 ug/mL
							2-Fluorobiphenyl	4 ug/mL
							2-Fluorophenol (Surr)	4 ug/mL
							Nitrobenzene-d5 (Surr)	4 ug/mL
							Phenol-d5 (Surr)	4 ug/mL
							Terphenyl-d14 (Surr)	4 ug/mL
							Famphur	4 ug/mL
							1,1'-Biphenyl	4 ug/mL
							1,2,4,5-Tetrachlorobenzene	4 ug/mL
							1,2,4-Trichlorobenzene	4 ug/mL
							1,2-Dichlorobenzene	4 ug/mL
							1,2-Diphenylhydrazine	4.0439 ug/mL
							1,3-Dichlorobenzene	4 ug/mL
							1,3-Dinitrobenzene	4 ug/mL
							1,4-Dichlorobenzene	4 ug/mL
							1,4-Dioxane	4 ug/mL
							1-Methylnaphthalene	4 ug/mL
							2,2'-oxybis[1-chloropropane]	4 ug/mL
							2,3,4,6-Tetrachlorophenol	4 ug/mL
							2,4,5-Trichlorophenol	4 ug/mL
							2,4,6-Trichlorophenol	4 ug/mL
							2,4-Dichlorophenol	4 ug/mL
							2,4-Dimethylphenol	4 ug/mL
							2,4-Dinitrophenol	8 ug/mL
							2,4-Dinitrotoluene	4 ug/mL
							2,6-Dichlorophenol	4 ug/mL
							2,6-Dinitrotoluene	4 ug/mL
							2-Chloronaphthalene	4 ug/mL
							2-Chlorophenol	4 ug/mL
							2-Methylnaphthalene	4 ug/mL
							2-Methylphenol	4 ug/mL
							2-Nitroaniline	4 ug/mL
							2-Nitrophenol	4 ug/mL
							3 & 4 Methylphenol	4 ug/mL
							3-Methylphenol	4 ug/mL
							3-Nitroaniline	4 ug/mL
							4,6-Dinitro-2-methylphenol	8 ug/mL
							4-Bromophenyl phenyl ether	4 ug/mL
							4-Chloro-3-methylphenol	4 ug/mL
							4-Chloroaniline	4 ug/mL
							4-Chlorophenyl phenyl ether	4 ug/mL
							4-Methylphenol	4 ug/mL
							4-Nitroaniline	4 ug/mL
							4-Nitrophenol	8 ug/mL
							Acenaphthene	4 ug/mL
							Acenaphthylene	4 ug/mL
							Acetophenone	4 ug/mL
							Aniline	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	4 ug/mL
							Azobenzene	4 ug/mL
							Benzo[a]anthracene	4 ug/mL
							Benzo[a]pyrene	4 ug/mL
							Benzo[b]fluoranthene	4 ug/mL
							Benzo[g,h,i]perylene	4 ug/mL
							Benzo[k]fluoranthene	4 ug/mL
							Benzyl alcohol	4 ug/mL
							Bis(2-chloroethoxy)methane	4 ug/mL
							Bis(2-chloroethyl)ether	4 ug/mL
							Bis(2-ethylhexyl) phthalate	4 ug/mL
							Butyl benzyl phthalate	4 ug/mL
							Carbazole	4 ug/mL
							Chrysene	4 ug/mL
							Di-n-butyl phthalate	4 ug/mL
							Di-n-octyl phthalate	4 ug/mL
							Dibenz(a,h)anthracene	4 ug/mL
							Dibenzofuran	4 ug/mL
							Diethyl phthalate	4 ug/mL
							Dimethyl phthalate	4 ug/mL
							Fluoranthene	4 ug/mL
							Fluorene	4 ug/mL
							Hexachlorobenzene	4 ug/mL
							Hexachlorobutadiene	4 ug/mL
							Hexachlorocyclopentadiene	4 ug/mL
							Hexachloroethane	4 ug/mL
							Indeno[1,2,3-cd]pyrene	4 ug/mL
							Isophorone	4 ug/mL
							N-Nitrosodi-n-propylamine	4 ug/mL
							N-Nitrosodimethylamine	4 ug/mL
							N-Nitrosodiphenylamine	8 ug/mL
							Naphthalene	4 ug/mL
							Nitrobenzene	4 ug/mL
							Pentachlorophenol	8 ug/mL
							Phenanthrene	4 ug/mL
							Phenol	4 ug/mL
							Pyrene	4 ug/mL
							Pyridine	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Caprolactam	4 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-HSLA010_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	25 uL	Benzoic acid	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
							Famphur	10 ug/mL
							1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10.1097 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Caprolactam	10 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730_HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA020_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	50 uL	Benzoic acid	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
							Famphur	20 ug/mL
							1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20.2195 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Caprolactam	20 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA050_00021	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	125 uL	Benzoic acid	100 ug/mL
							2,4,6-Tribromophenol (Surr)	50 ug/mL
							2-Fluorobiphenyl	50 ug/mL
							2-Fluorophenol (Surr)	50 ug/mL
							Nitrobenzene-d5 (Surr)	50 ug/mL
							Phenol-d5 (Surr)	50 ug/mL
							Terphenyl-d14 (Surr)	50 ug/mL
							Famphur	50 ug/mL
							1,1'-Biphenyl	50 ug/mL
							1,2,4,5-Tetrachlorobenzene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Diphenylhydrazine	50.5487 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dinitrobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	50 ug/mL
							1-Methylnaphthalene	50 ug/mL
							2,2'-oxybis[1-chloropropane]	50 ug/mL
							2,3,4,6-Tetrachlorophenol	50 ug/mL
							2,4,5-Trichlorophenol	50 ug/mL
							2,4,6-Trichlorophenol	50 ug/mL
							2,4-Dichlorophenol	50 ug/mL
							2,4-Dimethylphenol	50 ug/mL
							2,4-Dinitrophenol	100 ug/mL
							2,4-Dinitrotoluene	50 ug/mL
							2,6-Dichlorophenol	50 ug/mL
							2,6-Dinitrotoluene	50 ug/mL
							2-Chloronaphthalene	50 ug/mL
							2-Chlorophenol	50 ug/mL
							2-Methylnaphthalene	50 ug/mL
							2-Methylphenol	50 ug/mL
							2-Nitroaniline	50 ug/mL
							2-Nitrophenol	50 ug/mL
							3 & 4 Methylphenol	50 ug/mL
							3-Methylphenol	50 ug/mL
							3-Nitroaniline	50 ug/mL
							4,6-Dinitro-2-methylphenol	100 ug/mL
							4-Bromophenyl phenyl ether	50 ug/mL
							4-Chloro-3-methylphenol	50 ug/mL
							4-Chloroaniline	50 ug/mL
							4-Chlorophenyl phenyl ether	50 ug/mL
							4-Methylphenol	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	50 ug/mL
							4-Nitrophenol	100 ug/mL
							Acenaphthene	50 ug/mL
							Acenaphthylene	50 ug/mL
							Acetophenone	50 ug/mL
							Aniline	50 ug/mL
							Anthracene	50 ug/mL
							Azobenzene	50 ug/mL
							Benzo[a]anthracene	50 ug/mL
							Benzo[a]pyrene	50 ug/mL
							Benzo[b]fluoranthene	50 ug/mL
							Benzo[g,h,i]perylene	50 ug/mL
							Benzo[k]fluoranthene	50 ug/mL
							Benzyl alcohol	50 ug/mL
							Bis(2-chloroethoxy)methane	50 ug/mL
							Bis(2-chloroethyl)ether	50 ug/mL
							Bis(2-ethylhexyl) phthalate	50 ug/mL
							Butyl benzyl phthalate	50 ug/mL
							Carbazole	50 ug/mL
							Chrysene	50 ug/mL
							Di-n-butyl phthalate	50 ug/mL
							Di-n-octyl phthalate	50 ug/mL
							Dibenz(a,h)anthracene	50 ug/mL
							Dibenzofuran	50 ug/mL
							Diethyl phthalate	50 ug/mL
							Dimethyl phthalate	50 ug/mL
							Fluoranthene	50 ug/mL
							Fluorene	50 ug/mL
							Hexachlorobenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexachlorocyclopentadiene	50 ug/mL
							Hexachloroethane	50 ug/mL
							Indeno[1,2,3-cd]pyrene	50 ug/mL
							Isophorone	50 ug/mL
							N-Nitrosodi-n-propylamine	50 ug/mL
							N-Nitrosodimethylamine	50 ug/mL
							N-Nitrosodiphenylamine	100 ug/mL
							Naphthalene	50 ug/mL
							Nitrobenzene	50 ug/mL
							Pentachlorophenol	100 ug/mL
							Phenanthrene	50 ug/mL
							Phenol	50 ug/mL
							Pyrene	50 ug/mL
							Pyridine	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Caprolactam	50 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA080_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	200 uL	Benzoic acid	160 ug/mL
							2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Famphur	80 ug/mL
							1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
							3,3'-Dichlorobenzidine	80 ug/mL
							Caprolactam	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA120_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	300 uL	Benzoic acid	240 ug/mL
							2,4,6-Tribromophenol (Surr)	120 ug/mL
							2-Fluorobiphenyl	120 ug/mL
							2-Fluorophenol (Surr)	120 ug/mL
							Nitrobenzene-d5 (Surr)	120 ug/mL
							Phenol-d5 (Surr)	120 ug/mL
							Terphenyl-d14 (Surr)	120 ug/mL
							Famphur	120 ug/mL
							1,1'-Biphenyl	120 ug/mL
							1,2,4,5-Tetrachlorobenzene	120 ug/mL
							1,2,4-Trichlorobenzene	120 ug/mL
							1,2-Dichlorobenzene	120 ug/mL
							1,2-Diphenylhydrazine	121.317 ug/mL
							1,3-Dichlorobenzene	120 ug/mL
							1,3-Dinitrobenzene	120 ug/mL
							1,4-Dichlorobenzene	120 ug/mL
							1,4-Dioxane	120 ug/mL
							1-Methylnaphthalene	120 ug/mL
							2,2'-oxybis[1-chloropropane]	120 ug/mL
							2,3,4,6-Tetrachlorophenol	120 ug/mL
							2,4,5-Trichlorophenol	120 ug/mL
							2,4,6-Trichlorophenol	120 ug/mL
							2,4-Dichlorophenol	120 ug/mL
							2,4-Dimethylphenol	120 ug/mL
							2,4-Dinitrophenol	240 ug/mL
							2,4-Dinitrotoluene	120 ug/mL
							2,6-Dichlorophenol	120 ug/mL
							2,6-Dinitrotoluene	120 ug/mL
							2-Chloronaphthalene	120 ug/mL
							2-Chlorophenol	120 ug/mL
							2-Methylnaphthalene	120 ug/mL
							2-Methylphenol	120 ug/mL
							2-Nitroaniline	120 ug/mL
							2-Nitrophenol	120 ug/mL
							3 & 4 Methylphenol	120 ug/mL
							3-Methylphenol	120 ug/mL
							3-Nitroaniline	120 ug/mL
							4,6-Dinitro-2-methylphenol	240 ug/mL
							4-Bromophenyl phenyl ether	120 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	120 ug/mL
							4-Chloroaniline	120 ug/mL
							4-Chlorophenyl phenyl ether	120 ug/mL
							4-Methylphenol	120 ug/mL
							4-Nitroaniline	120 ug/mL
							4-Nitrophenol	240 ug/mL
							Acenaphthene	120 ug/mL
							Acenaphthylene	120 ug/mL
							Acetophenone	120 ug/mL
							Aniline	120 ug/mL
							Anthracene	120 ug/mL
							Azobenzene	120 ug/mL
							Benzo[a]anthracene	120 ug/mL
							Benzo[a]pyrene	120 ug/mL
							Benzo[b]fluoranthene	120 ug/mL
							Benzo[g,h,i]perylene	120 ug/mL
							Benzo[k]fluoranthene	120 ug/mL
							Benzyl alcohol	120 ug/mL
							Bis(2-chloroethoxy)methane	120 ug/mL
							Bis(2-chloroethyl)ether	120 ug/mL
							Bis(2-ethylhexyl) phthalate	120 ug/mL
							Butyl benzyl phthalate	120 ug/mL
							Carbazole	120 ug/mL
							Chrysene	120 ug/mL
							Di-n-butyl phthalate	120 ug/mL
							Di-n-octyl phthalate	120 ug/mL
							Dibenz(a,h)anthracene	120 ug/mL
							Dibenzofuran	120 ug/mL
							Diethyl phthalate	120 ug/mL
							Dimethyl phthalate	120 ug/mL
							Fluoranthene	120 ug/mL
							Fluorene	120 ug/mL
							Hexachlorobenzene	120 ug/mL
							Hexachlorobutadiene	120 ug/mL
							Hexachlorocyclopentadiene	120 ug/mL
							Hexachloroethane	120 ug/mL
							Indeno[1,2,3-cd]pyrene	120 ug/mL
							Isophorone	120 ug/mL
							N-Nitrosodi-n-propylamine	120 ug/mL
							N-Nitrosodimethylamine	120 ug/mL
							N-Nitrosodiphenylamine	240 ug/mL
							Naphthalene	120 ug/mL
							Nitrobenzene	120 ug/mL
							Pentachlorophenol	240 ug/mL
							Phenanthrene	120 ug/mL
							Phenol	120 ug/mL
							Pyrene	120 ug/mL
							Pyridine	120 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dichlorobenzidine	120 ug/mL
							Caprolactam	120 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA160_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	400 uL	Benzoic acid	320 ug/mL
							2,4,6-Tribromophenol (Surr)	160 ug/mL
							2-Fluorobiphenyl	160 ug/mL
							2-Fluorophenol (Surr)	160 ug/mL
							Nitrobenzene-d5 (Surr)	160 ug/mL
							Phenol-d5 (Surr)	160 ug/mL
							Terphenyl-d14 (Surr)	160 ug/mL
							Famphur	160 ug/mL
							1,1'-Biphenyl	160 ug/mL
							1,2,4,5-Tetrachlorobenzene	160 ug/mL
							1,2,4-Trichlorobenzene	160 ug/mL
							1,2-Dichlorobenzene	160 ug/mL
							1,2-Diphenylhydrazine	161.756 ug/mL
							1,3-Dichlorobenzene	160 ug/mL
							1,3-Dinitrobenzene	160 ug/mL
							1,4-Dichlorobenzene	160 ug/mL
							1,4-Dioxane	160 ug/mL
							1-Methylnaphthalene	160 ug/mL
							2,2'-oxybis[1-chloropropane]	160 ug/mL
							2,3,4,6-Tetrachlorophenol	160 ug/mL
							2,4,5-Trichlorophenol	160 ug/mL
							2,4,6-Trichlorophenol	160 ug/mL
							2,4-Dichlorophenol	160 ug/mL
							2,4-Dimethylphenol	160 ug/mL
							2,4-Dinitrophenol	320 ug/mL
							2,4-Dinitrotoluene	160 ug/mL
							2,6-Dichlorophenol	160 ug/mL
							2,6-Dinitrotoluene	160 ug/mL
							2-Chloronaphthalene	160 ug/mL
							2-Chlorophenol	160 ug/mL
							2-Methylnaphthalene	160 ug/mL
							2-Methylphenol	160 ug/mL
							2-Nitroaniline	160 ug/mL
							2-Nitrophenol	160 ug/mL
							3 & 4 Methylphenol	160 ug/mL
							3-Methylphenol	160 ug/mL
							3-Nitroaniline	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	320 ug/mL
							4-Bromophenyl phenyl ether	160 ug/mL
							4-Chloro-3-methylphenol	160 ug/mL
							4-Chloroaniline	160 ug/mL
							4-Chlorophenyl phenyl ether	160 ug/mL
							4-Methylphenol	160 ug/mL
							4-Nitroaniline	160 ug/mL
							4-Nitrophenol	320 ug/mL
							Acenaphthene	160 ug/mL
							Acenaphthylene	160 ug/mL
							Acetophenone	160 ug/mL
							Aniline	160 ug/mL
							Anthracene	160 ug/mL
							Azobenzene	160 ug/mL
							Benzo[a]anthracene	160 ug/mL
							Benzo[a]pyrene	160 ug/mL
							Benzo[b]fluoranthene	160 ug/mL
							Benzo[g,h,i]perylene	160 ug/mL
							Benzo[k]fluoranthene	160 ug/mL
							Benzyl alcohol	160 ug/mL
							Bis(2-chloroethoxy)methane	160 ug/mL
							Bis(2-chloroethyl)ether	160 ug/mL
							Bis(2-ethylhexyl) phthalate	160 ug/mL
							Butyl benzyl phthalate	160 ug/mL
							Carbazole	160 ug/mL
							Chrysene	160 ug/mL
							Di-n-butyl phthalate	160 ug/mL
							Di-n-octyl phthalate	160 ug/mL
							Dibenz(a,h)anthracene	160 ug/mL
							Dibenzofuran	160 ug/mL
							Diethyl phthalate	160 ug/mL
							Dimethyl phthalate	160 ug/mL
							Fluoranthene	160 ug/mL
							Fluorene	160 ug/mL
							Hexachlorobenzene	160 ug/mL
							Hexachlorobutadiene	160 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	160 ug/mL
							Indeno[1,2,3-cd]pyrene	160 ug/mL
							Isophorone	160 ug/mL
							N-Nitrosodi-n-propylamine	160 ug/mL
							N-Nitrosodimethylamine	160 ug/mL
							N-Nitrosodiphenylamine	320 ug/mL
							Naphthalene	160 ug/mL
							Nitrobenzene	160 ug/mL
							Pentachlorophenol	320 ug/mL
							Phenanthrene	160 ug/mL
							Phenol	160 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	160 ug/mL
							Pyridine	160 ug/mL
							3,3'-Dichlorobenzidine	160 ug/mL
							Caprolactam	160 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19	Restek, Lot A0107273			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA200_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	500 uL	Benzoic acid	400 ug/mL
							2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
							Famphur	200 ug/mL
							1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
							3,3'-Dichlorobenzidine	200 ug/mL
							Caprolactam	200 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLACCV080_00050	11/20/15	05/16/15	Methylene Chloride, Lot 91740	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-HSLACCV080_00050	11/20/15	05/16/15	Methylene Chloride, Lot 91740	0.5 mL	MS-HSLA_STK_00015	200 uL	2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Caprolactam	80 ug/mL
.MS-HSLA_STK_00015	11/20/15	04/30/15	Methylene Chloride, Lot 87975	10 mL	MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567685_00001	11/20/15	Restek, Lot A092712			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-569732 HSL_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Caprolactam	2000 ug/mL
MS-HSLB1B3SSV_00028	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLB2_STK_00005	250 uL	Caprolactam	100 ug/mL
.MS-HSLB2_STK_00005	04/30/16	04/30/15	Methylene Chloride, Lot 87975	10 mL	MS-569732SEC_00001	1 mL	Caprolactam	200 ug/mL
..MS-569732SEC_00001	06/30/16		Restek, Lot A0108042		(Purchased Reagent)		Caprolactam	2000 ug/mL
MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
.MS-567684_00018	11/30/19	Restek, Lot A0107273			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Reagent ID: 8270Surrogate_00086

		Expiration Date:	10/16/2016
Description:	8270 Surrogate 100ug/ml	Laboratory:	TestAmerica Denver
No. of Bottles:	4	Prepared By:	Stevenson, Michael D
Storage Location:	North Prep	Solvent:	ACETONE
Reagent Volume:	1000.000 mL	Solvent Lot:	Acetone_000137
Creation Date:	10/16/2015		
Open Date:			
Container(s):	3554524, 3554525, 3554526, 3554527		
Comment:	Take 20mL of 8270SurHL and dilute to 1000mL in acetone. One year expiration date. Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.		

Standards fridge.

Reagent Analyte Information

Merlz cyst_00243 Pip N @ 1/ml

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2,4,6 - Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Reagent ID: 8270Surrogate_00086

		Expiration Date:	10/16/2016
Description:	8270 Surrogate 100ug/ml	Laboratory:	TestAmerica Denver
No. of Bottles:	4	Prepared By:	Stevenson, Michael D
Storage Location:	North Prep	Solvent:	ACETONE
Reagent Volume:	1000.000 mL	Solvent Lot:	Acetone_000137
Creation Date:	10/16/2015		
Open Date:			
Container(s):	3554524, 3554525, 3554526, 3554527		
Comment:	Take 20mL of 8270SurHL and dilute to 1000mL in acetone. One year expiration date. Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.		

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2-Fluorobiphenyl	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL

Source Reagents

Reagent	Description	Type	Expiration	Vendor	Vendor Lot #	Vendor Cat Lot #	Volume Used	Volume Units
8270SurStkHL_00117	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00118	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00131	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00133	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL

Report Date: 23-Oct-2015 07:15:39 Chrom Revision: 2.2 08-Oct-2015 07:17:48

Preliminary Report

TestAmerica Denver

Recovery Report

Data File:	\\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\G6_20682.D				
Lims ID:	8270Surrogate_00086	Lab Sample ID:	Client 280-300564/34-A		
Client ID:					
Sample Type:	Client				
Inject. Date:	22-Oct-2015 14:57:30	ALS Bottle#:	7	Worklist Smp#:	34
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Sample Info:	8270Surrogate_00086				
Operator ID:	KIEKELD	Instrument ID:	SMS_G6		
Method:	\\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\SMSG6_8270C.m				
Limit Group:	MSSV - 8270C_625				
Method Label:	8270C / 625				
Last Update:	23-Oct-2015 05:57:29	Calib Date:	15-Oct-2015 13:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\SMS_G6\20151015-40387.b\G6_20552.D				
Column 1 :	VF-5ms (0.50 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	90.7	90.71
$ 8 Phenol-d5	100.0	88.8	88.85
$ 9 Nitrobenzene-d5	100.0	87.1	87.10
$ 11 2-Fluorobiphenyl	100.0	89.4	89.43
$ 12 2,4,6-Tribromophenol	100.0	90.5	90.49
$ 13 Terphenyl-d14	100.0	81.8	81.82

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0103685

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000 µg/ml, Methylene Chloride, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2017 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibenz(a,j)acridine	2,014.0 µg/mL	+/- 11.9625	µg/mL	Gravimetric
	CAS # 224-42-0 (Lot ER081407-01)		+/- 89.5165	µg/mL	Unstressed
	Purity 99%		+/- 98.3442	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

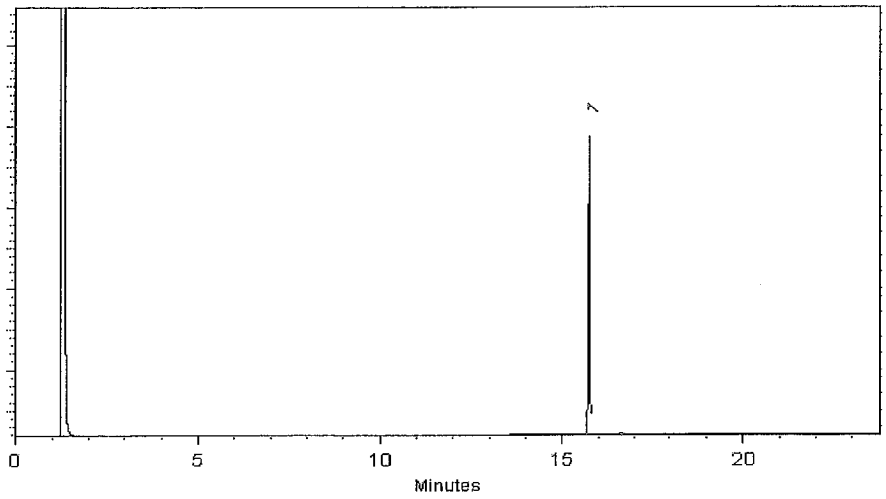
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 30-May-2014 **Balance:** 1128342313

Jodi E. Breon - QA Analyst

Date Passed: 04-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol		5,003.5	µg/mL	+/- 29.0892	µg/mL	Gravimetric
	CAS # 367-12-4	(Lot STBC5591V)			+/- 124.6713	µg/mL	Unstressed
	Purity 99%				+/- 156.7818	µg/mL	Stressed
2	Phenol-d5		5,002.9	µg/mL	+/- 29.0860	µg/mL	Gravimetric
	CAS # 4165-62-2	(Lot M387P4)			+/- 124.6575	µg/mL	Unstressed
	Purity 99%				+/- 156.7644	µg/mL	Stressed
3	Nitrobenzene-d5		5,001.4	µg/mL	+/- 29.0773	µg/mL	Gravimetric
	CAS # 4165-60-0	(Lot PR-20474)			+/- 124.6201	µg/mL	Unstressed
	Purity 99%				+/- 156.7174	µg/mL	Stressed
4	2-Fluorobiphenyl		5,004.4	µg/mL	+/- 29.0947	µg/mL	Gravimetric
	CAS # 321-60-8	(Lot E11Y047)			+/- 124.6949	µg/mL	Unstressed
	Purity 99%				+/- 156.8114	µg/mL	Stressed
5	2,4,6-Tribromophenol		5,003.9	µg/mL	+/- 29.0914	µg/mL	Gravimetric
	CAS # 118-79-6	(Lot 29699MJV)			+/- 124.6805	µg/mL	Unstressed
	Purity 99%				+/- 156.7934	µg/mL	Stressed
6	p-Terphenyl-d14		5,007.1	µg/mL	+/- 29.1100	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-20577)			+/- 124.7604	µg/mL	Unstressed
	Purity 99%				+/- 156.8938	µg/mL	Stressed

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBC5591V) **Purity** 99%	5,003.5 µg/mL	+/- 29.0892 µg/mL +/- 124.6713 µg/mL +/- 156.7818 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d5 **CAS #** 4165-62-2 (Lot M387P4) **Purity** 99%	5,002.9 µg/mL	+/- 29.0860 µg/mL +/- 124.6575 µg/mL +/- 156.7644 µg/mL	Gravimetric Unstressed Stressed
3	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-20474) **Purity** 99%	5,001.4 µg/mL	+/- 29.0773 µg/mL +/- 124.6201 µg/mL +/- 156.7174 µg/mL	Gravimetric Unstressed Stressed
4	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot E11Y047) **Purity** 99%	5,004.4 µg/mL	+/- 29.0947 µg/mL +/- 124.6949 µg/mL +/- 156.8114 µg/mL	Gravimetric Unstressed Stressed
5	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot 29699MJV) **Purity** 99%	5,003.9 µg/mL	+/- 29.0914 µg/mL +/- 124.6805 µg/mL +/- 156.7934 µg/mL	Gravimetric Unstressed Stressed
6	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-20577) **Purity** 99%	5,007.1 µg/mL	+/- 29.1100 µg/mL +/- 124.7604 µg/mL +/- 156.8938 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

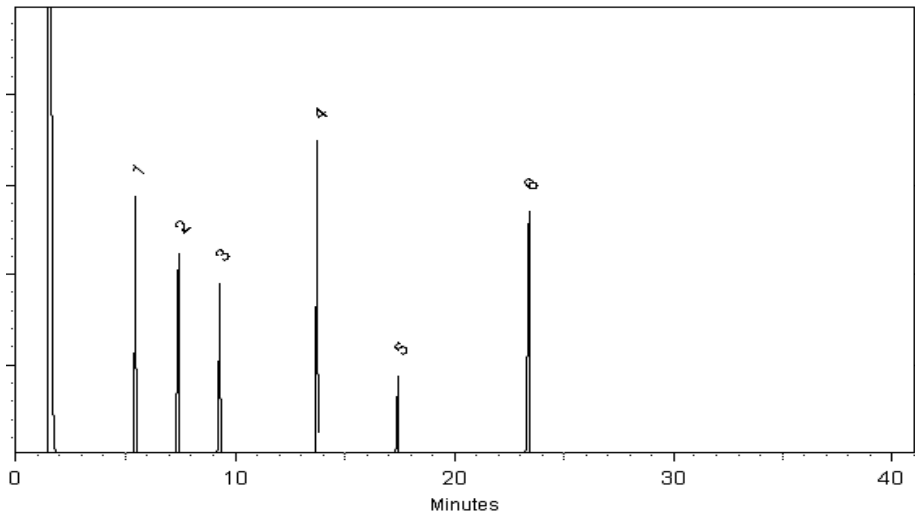
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014 **Balance:** 1128342313

Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol	5,003.5 µg/mL	+/- 29.0892 µg/mL	Gravimetric
	CAS # 367-12-4 (Lot STBC5591V)		+/- 124.6713 µg/mL	Unstressed
	Purity 99%		+/- 156.7818 µg/mL	Stressed
2	Phenol-d5	5,002.9 µg/mL	+/- 29.0860 µg/mL	Gravimetric
	CAS # 4165-62-2 (Lot M387P4)		+/- 124.6575 µg/mL	Unstressed
	Purity 99%		+/- 156.7644 µg/mL	Stressed
3	Nitrobenzene-d5	5,001.4 µg/mL	+/- 29.0773 µg/mL	Gravimetric
	CAS # 4165-60-0 (Lot PR-20474)		+/- 124.6201 µg/mL	Unstressed
	Purity 99%		+/- 156.7174 µg/mL	Stressed
4	2-Fluorobiphenyl	5,004.4 µg/mL	+/- 29.0947 µg/mL	Gravimetric
	CAS # 321-60-8 (Lot E11Y047)		+/- 124.6949 µg/mL	Unstressed
	Purity 99%		+/- 156.8114 µg/mL	Stressed
5	2,4,6-Tribromophenol	5,003.9 µg/mL	+/- 29.0914 µg/mL	Gravimetric
	CAS # 118-79-6 (Lot 29699MJV)		+/- 124.6805 µg/mL	Unstressed
	Purity 99%		+/- 156.7934 µg/mL	Stressed
6	p-Terphenyl-d14	5,007.1 µg/mL	+/- 29.1100 µg/mL	Gravimetric
	CAS # 1718-51-0 (Lot PR-20577)		+/- 124.7604 µg/mL	Unstressed
	Purity 99%		+/- 156.8938 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

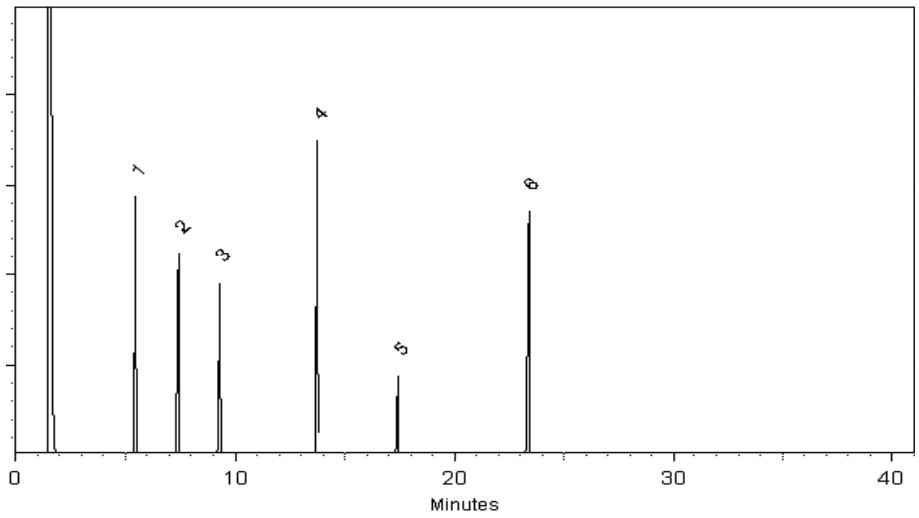
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014 **Balance:** 1128342313

Jennifer L Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Reference Materials

8270 List 1 / Std #3 Benzoic Acid

Catalog # 567674.sec

Lot # A093654 & A093441

110 Benner Circle Bellefonte, PA 16823-8812
(814) 353-1300

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RAW MATERIAL TEST INFORMATION AVAILABLE UPON REQUEST

MANUFACTURED UNDER RESTEK'S ISO 9001 REGISTERED QUALITY SYSTEM

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567674.sec **Lot No.:** A093654

Description : 8270 List 1 / Std #3 Benzoic Acid

8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzoic acid	2,000.0 µg/mL	+/- 11.6284	µg/mL	Gravimetric
	CAS # 65-85-0.SEC		+/- 96.5270	µg/mL	Unstressed
	Purity 97%		+/- 96.6098	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

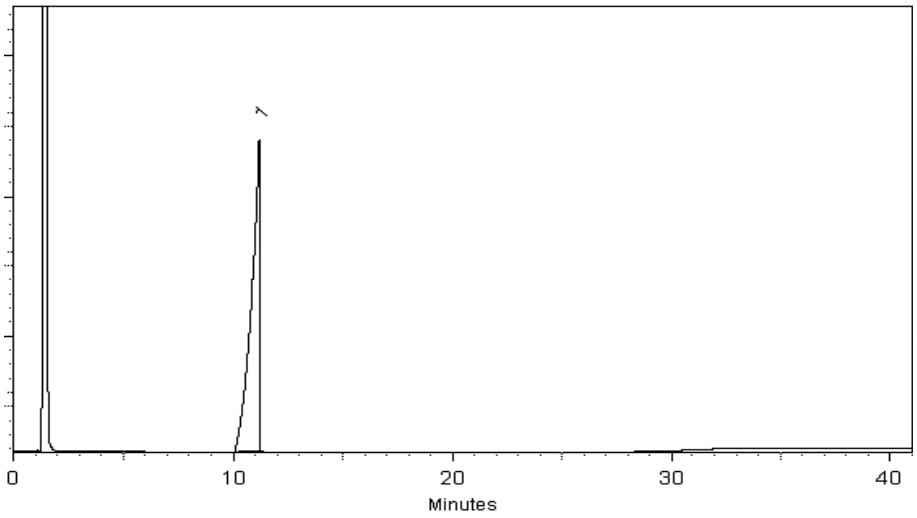
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Chemical Standard Batch Sheet
Lot #: A093654

Catalog #: 567674.sec	**Target:** 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	**Solvent Lot:** 126244	**Final Volume:** 1,000 ml

Made by: Mary Ellen Wood	**Date:** 2/19/2013 3:12:24PM		
Tested by: Jennifer Pollino	**Date:** 2/21/2013 11:48:51AM		
Pass	**By:** Jodi Breon	**Date:** 2/22/2013 12:34:09PM	
Packaged by: Alexandria Pavkovich / Alexandria Pavkov	**Date:** 2/21/2013 8:30:06AM	**No. Units:** 161	**Pkg Size:** 5 mL
Balance Used: BEDEARMBALPC2 XP205	**Serial #:** 1128353505		

Compound	CAS	Storage Location	Lot #	Purity	Target Conc(ug/mL)	Target	Actual	Calc Conc(ug/mL)
Benzoic acid	65-85-0.SEC	RS063	QD3UO	0.97	2,000.00	2,061.86 mg	2,061.90 mg	2,000.0

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567674 **Lot No.:** A093441

Description : 8270 List 1 / Std #3 Benzoic Acid

8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzoic acid	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 65-85-0		+/- 96.5249	µg/mL	Unstressed
	Purity 99%		+/- 96.6077	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

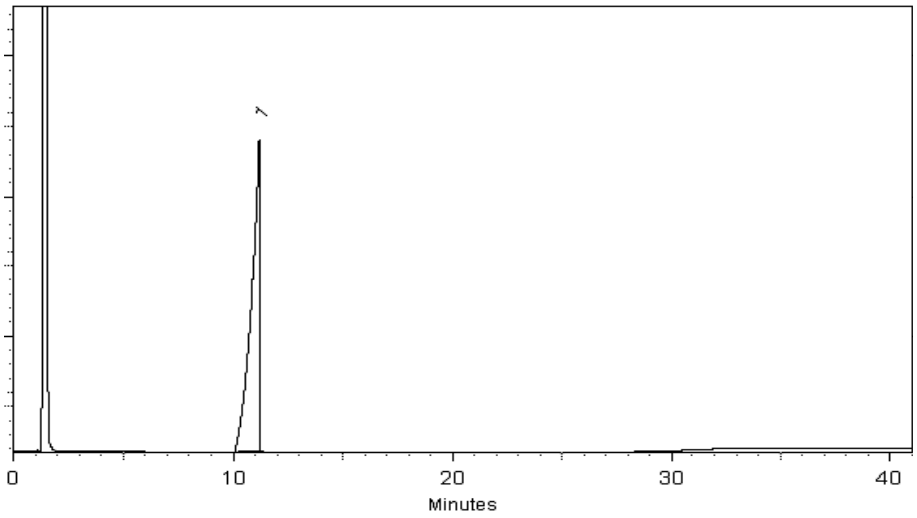
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128342313

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Chemical Standard Batch Sheet
Lot #: A093441

Catalog #: 567674	**Target:** 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	**Solvent Lot:** 127438	**Final Volume:** 4,000 ml

Made by: Matt Hepfer	**Date:** 2/7/2013 1:17:18PM		
Tested by: Jodi Breon	**Date:** 2/8/2013 3:42:28PM		
Pass	**By:** Jodi Breon	**Date:** 2/22/2013 12:33:55PM	
Packaged by: Kendra Swope / Alexandria Pavkovich	**Date:** 2/8/2013 10:02:22AM	**No. Units:** 615	**Pkg Size:** 5 mL
Balance Used: BEDEARMBALPC1 XP205	**Serial #:** 1128342313		

Compound	CAS	Storage Location	Lot #	Purity	Target Conc(ug/mL)	Target	Actual	Calc Conc(ug/mL)
Benzoic acid	65-85-0	R0472	MKBG9391V	0.99	2,000.00	8,000.00 mg	8,000.00 mg	2,000.0

QA Report: 8270 List 1/ Std. #3 Benzoic Acid (Cat.#567674)

	Runs of Lot # A093441						Runs of Lot # A093654							
COMPONENT	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	%D MEAN	**P/F**
Benzoic acid	5123644	5100875	5144322	5122947	21732	0.42	5288104	5295526	5370045	5317892	45318	0.85	-3.81	PASS

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 – 00016 **Lot No.:** A093676

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 92.7158 +/- 101.3766	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 92.7158 +/- 101.3766	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 **Purity** 97%	2,000.0 µg/mL	+/- 11.6282 +/- 92.7163 +/- 101.3771	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 92.7158 +/- 101.3766	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 92.7150 +/- 101.3758	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 92.7158 +/- 101.3766	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 – 00017 **Lot No.:** A092546

Description : 8270 SV Internal Standard Mix

8270 SV Internal Standard Mix 2000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 2017 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 **Purity** 97%	2,000.1 µg/mL	+/- 11.7379 +/- 92.7360 +/- 101.3962	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 **Purity** 98%	2,000.2 µg/mL	+/- 11.7382 +/- 92.7378 +/- 101.3983	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

MS-
3043056
ID: MS-567684_00018
Exp: 11/30/19 Prpd: DCK
RES 8270 Internal Std Mix

Catalog No. : 567684 **Lot No.:** A0107273

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2019 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4		2,017.6	µg/mL	+/- 11.7305	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)			+/- 89.6430	µg/mL	Unstressed
	Purity 99%				+/- 98.4895	µg/mL	Stressed
2	Naphthalene-d8		2,003.8	µg/mL	+/- 11.6503	µg/mL	Gravimetric
	CAS # 1146-65-2	(Lot PR-20449)			+/- 89.0299	µg/mL	Unstressed
	Purity 99%				+/- 97.8158	µg/mL	Stressed
3	Acenaphthene-d10		2,016.8	µg/mL	+/- 11.7260	µg/mL	Gravimetric
	CAS # 15067-26-2	(Lot PR-21070)			+/- 89.6085	µg/mL	Unstressed
	Purity 97%				+/- 98.4516	µg/mL	Stressed
4	Phenanthrene-d10		2,013.6	µg/mL	+/- 11.7072	µg/mL	Gravimetric
	CAS # 1517-22-2	(Lot PR-23065)			+/- 89.4653	µg/mL	Unstressed
	Purity 99%				+/- 98.2942	µg/mL	Stressed
5	Chrysene-d12		2,011.8	µg/mL	+/- 11.6968	µg/mL	Gravimetric
	CAS # 1719-03-5	(Lot PR-25081)			+/- 89.3853	µg/mL	Unstressed
	Purity 99%				+/- 98.2063	µg/mL	Stressed
6	Perylene-d12		2,017.8	µg/mL	+/- 11.7317	µg/mL	Gravimetric
	CAS # 1520-96-3	(Lot PR-24113)			+/- 89.6519	µg/mL	Unstressed
	Purity 99%				+/- 98.4992	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

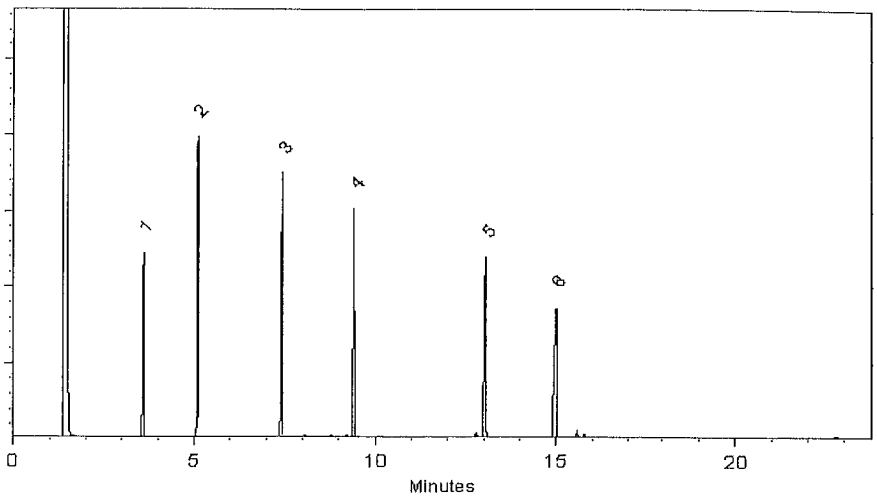
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 17-Nov-2014 **Balance:** 1128342313

Jennifer L. Pollino - QC Analyst

Date Passed: 19-Nov-2014

Manufactured under Restek's ISO 9001:2008
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 - 00001 **Lot No.:** A092712

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 367-12-4		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 4165-62-2		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 4165-60-0		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 321-60-8		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 118-79-6		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 1718-51-0		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3049651
ID: MS-568023_00010
Exp: 12/31/16 Prpd: DCK
RES HSLA Famphur 2000ug/m

Catalog No. : 568023 **Lot No.:** A0107887

Description : 8270 Famphur Standard

8270 Famphur Standard 2,000 µg/ml, Methylene Chloride, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Famphur	2,000.0 µg/mL	+/- 20.1475 µg/mL	Gravimetric
	CAS # 52-85-7 (Lot 2451100)		+/- 73.8678 µg/mL	Unstressed
	Purity 99%		+/- 73.8702 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Michael J Maye

Date Mixed: 18-Dec-2014 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

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110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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3223427
ID: MS-569729_00025
Exp: 09/30/16 Prpd: DCK
RES HSLA Mega Mix 1000ug/

Catalog No. : 569729 **Lot No.:** A0109703

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane **CAS #** 123-91-1 (Lot SHBF2002V) **Purity** 99%	1,001.8 µg/mL	+/- 5.8246 µg/mL +/- 10.9684 µg/mL +/- 18.6042 µg/mL	Gravimetric Unstressed Stressed
2	Pyridine **CAS #** 110-86-1 (Lot SHBC7174V) **Purity** 99%	1,004.7 µg/mL	+/- 5.8414 µg/mL +/- 11.0002 µg/mL +/- 18.6581 µg/mL	Gravimetric Unstressed Stressed
3	N-Nitrosodimethylamine **CAS #** 62-75-9 (Lot 3498100) **Purity** 99%	1,000.0 µg/mL	+/- 5.8141 µg/mL +/- 10.9487 µg/mL +/- 18.5708 µg/mL	Gravimetric Unstressed Stressed
4	Aniline **CAS #** 62-53-3 (Lot K22Z462) **Purity** 99%	1,000.9 µg/mL	+/- 5.8193 µg/mL +/- 10.9586 µg/mL +/- 18.5875 µg/mL	Gravimetric Unstressed Stressed
5	Bis(2-chloroethyl)ether **CAS #** 111-44-4 (Lot 45296HKV) **Purity** 99%	1,001.9 µg/mL	+/- 5.8251 µg/mL +/- 10.9695 µg/mL +/- 18.6061 µg/mL	Gravimetric Unstressed Stressed
6	2-Chlorophenol **CAS #** 95-57-8 (Lot MKBD3900V) **Purity** 99%	1,001.4 µg/mL	+/- 5.8222 µg/mL +/- 10.9640 µg/mL +/- 18.5968 µg/mL	Gravimetric Unstressed Stressed
7	Phenol **CAS #** 108-95-2 (Lot SHBC6998V) **Purity** 99%	1,000.3 µg/mL	+/- 5.8158 µg/mL +/- 10.9520 µg/mL +/- 18.5764 µg/mL	Gravimetric Unstressed Stressed

8	n-Decane (C10)		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBL3891V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot 68996CMV)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed
12	Benzyl alcohol		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,000.8	µg/mL	+/-	5.8187	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	10.9575	µg/mL	Unstressed
	Purity 99%				+/-	18.5856	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,002.9	µg/mL	+/-	5.8309	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	10.9804	µg/mL	Unstressed
	Purity 99%				+/-	18.6246	µg/mL	Stressed
15	Hexachloroethane		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
16	Acetophenone		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		501.2	µg/mL	+/-	2.9208	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.4911	µg/mL	Unstressed
	Purity 99%				+/-	9.3098	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		500.2	µg/mL	+/-	2.9149	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4801	µg/mL	Unstressed
	Purity 99%				+/-	9.2912	µg/mL	Stressed
20	Nitrobenzene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBB0246V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
21	Isophorone		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
22	2-Nitrophenol		1,003.1	µg/mL	+/-	5.8321	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	10.9826	µg/mL	Unstressed
	Purity 99%				+/-	18.6284	µg/mL	Stressed
23	2,4-Dimethylphenol		1,003.0	µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9815	µg/mL	Unstressed
	Purity 99%				+/-	18.6265	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
25	2,4-Dichlorophenol		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
27	Naphthalene		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
28	2,6-Dichlorophenol		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
29	4-Chloroaniline		1,000.3	µg/mL	+/-	5.8157	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9518	µg/mL	Unstressed
	Purity 98%				+/-	18.5761	µg/mL	Stressed
30	Hexachlorobutadiene		1,002.1	µg/mL	+/-	5.8260	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9711	µg/mL	Unstressed
	Purity 98%				+/-	18.6089	µg/mL	Stressed
31	2-Methylnaphthalene		1,000.2	µg/mL	+/-	5.8154	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9512	µg/mL	Unstressed
	Purity 96%				+/-	18.5749	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
33	1-Methylnaphthalene		990.0	µg/mL	+/-	5.7692	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.8463	µg/mL	Unstressed
	Purity 99%				+/-	18.3892	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
36	2,4,6-Trichlorophenol		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,002.2	µg/mL	+/-	5.8269	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	10.9728	µg/mL	Unstressed
	Purity 99%				+/-	18.6116	µg/mL	Stressed
38	2-Chloronaphthalene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot FIJ01)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
39	Biphenyl		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed

40	2-Nitroaniline		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
41	Acenaphthylene		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9618	µg/mL	Unstressed
	Purity 99%				+/-	18.5931	µg/mL	Stressed
43	Dimethylphthalate		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
45	Acenaphthene		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBH3748V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
46	2,4-Dinitrophenol		2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.8985	µg/mL	Unstressed
	Purity 99%				+/-	37.1434	µg/mL	Stressed
47	Dibenzofuran		1,003.0	µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9815	µg/mL	Unstressed
	Purity 99%				+/-	18.6265	µg/mL	Stressed
48	3-Nitroaniline		1,000.8	µg/mL	+/-	5.8190	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9580	µg/mL	Unstressed
	Purity 97%				+/-	18.5865	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
50	4-Nitrophenol		2,003.4	µg/mL	+/-	11.6479	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9346	µg/mL	Unstressed
	Purity 99%				+/-	37.2047	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot FN10221307)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
52	Fluorene		999.6	µg/mL	+/-	5.8118	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9443	µg/mL	Unstressed
	Purity 98%				+/-	18.5634	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
54	n-Hexadecane (C16)		1,003.0	µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBD4570V)			+/-	10.9815	µg/mL	Unstressed
	Purity 99%				+/-	18.6265	µg/mL	Stressed
55	Diethylphthalate		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed

56	Azobenzene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
57	Diphenylamine		1,701.0	µg/mL	+/-	9.8898	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.6237	µg/mL	Unstressed
	Purity 99%				+/-	31.5889	µg/mL	Stressed
58	4-Nitroaniline		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,000.8	µg/mL	+/-	11.6328	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC06195V)			+/-	21.9062	µg/mL	Unstressed
	Purity 99%				+/-	37.1564	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		999.5	µg/mL	+/-	5.8112	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	10.9432	µg/mL	Unstressed
	Purity 98%				+/-	18.5615	µg/mL	Stressed
61	Hexachlorobenzene		1,002.7	µg/mL	+/-	5.8300	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LC04221V)			+/-	10.9787	µg/mL	Unstressed
	Purity 98%				+/-	18.6216	µg/mL	Stressed
62	Pentachlorophenol		2,006.0	µg/mL	+/-	11.6631	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9631	µg/mL	Unstressed
	Purity 99%				+/-	37.2530	µg/mL	Stressed
63	Phenanthrene		1,001.9	µg/mL	+/-	5.8249	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	10.9690	µg/mL	Unstressed
	Purity 98%				+/-	18.6052	µg/mL	Stressed
64	n-Octadecane (C18)		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
65	Anthracene		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBR2268V)			+/-	10.9618	µg/mL	Unstressed
	Purity 99%				+/-	18.5931	µg/mL	Stressed
66	Carbazole		1,002.9	µg/mL	+/-	5.8311	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9808	µg/mL	Unstressed
	Purity 98%				+/-	18.6252	µg/mL	Stressed
67	Di-n-butylphthalate		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
68	Fluoranthene		999.8	µg/mL	+/-	5.8129	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9465	µg/mL	Unstressed
	Purity 98%				+/-	18.5670	µg/mL	Stressed
69	Pyrene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBL6786V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
71	Benz(a)anthracene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed

72	Chrysene		1,004.7	µg/mL	+/- 5.8414	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/- 11.0002	µg/mL	Unstressed
	Purity 99%				+/- 18.6581	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,002.2	µg/mL	+/- 5.8269	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/- 10.9728	µg/mL	Unstressed
	Purity 99%				+/- 18.6116	µg/mL	Stressed
74	Di-n-octyl phthalate		1,001.9	µg/mL	+/- 5.8251	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/- 10.9695	µg/mL	Unstressed
	Purity 99%				+/- 18.6061	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,001.3	µg/mL	+/- 5.8216	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/- 10.9629	µg/mL	Unstressed
	Purity 99%				+/- 18.5949	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,000.5	µg/mL	+/- 5.8170	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/- 10.9542	µg/mL	Unstressed
	Purity 99%				+/- 18.5801	µg/mL	Stressed
77	Benzo(a)pyrene		1,002.5	µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/- 10.9761	µg/mL	Unstressed
	Purity 99%				+/- 18.6172	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,003.3	µg/mL	+/- 5.8333	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/- 10.9848	µg/mL	Unstressed
	Purity 99%				+/- 18.6321	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,000.7	µg/mL	+/- 5.8182	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/- 10.9564	µg/mL	Unstressed
	Purity 99%				+/- 18.5838	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.0	µg/mL	+/- 5.8199	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/- 10.9596	µg/mL	Unstressed
	Purity 99%				+/- 18.5894	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

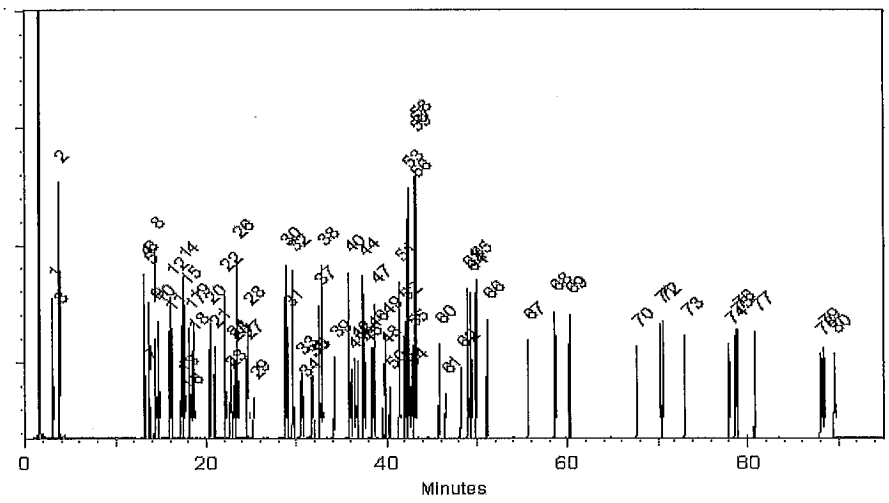
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 16-Mar-2015 **Balance:** B442140311

Tyler Brown - QA Analyst

Date Passed: 23-Mar-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

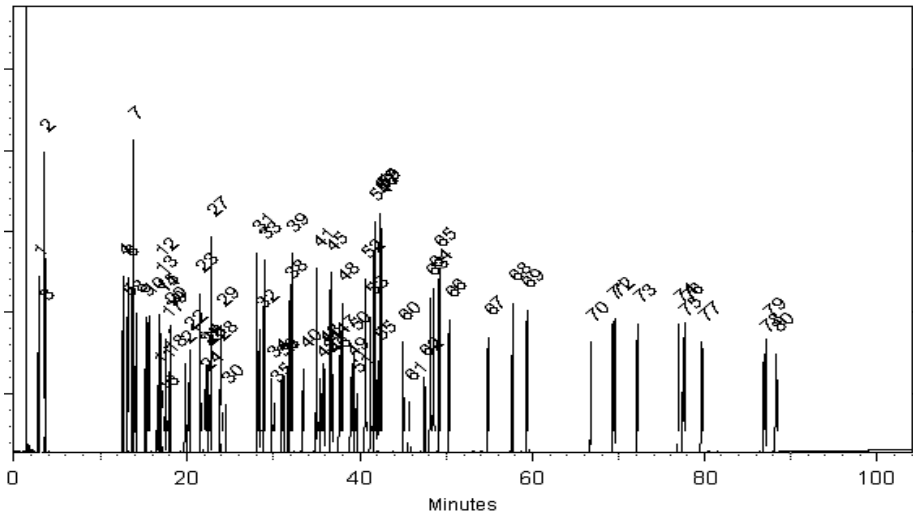
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)		+/- 10.9607 µg/mL	Unstressed
	Purity 99%		+/- 18.5912 µg/mL	Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/- 11.0166 µg/mL	Unstressed
	Purity 99%		+/- 18.6859 µg/mL	Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/- 11.0472 µg/mL	Unstressed
	Purity 99%		+/- 18.7379 µg/mL	Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/- 11.0483 µg/mL	Unstressed
	Purity 99%		+/- 18.7398 µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/- 11.0067 µg/mL	Unstressed
	Purity 99%		+/- 18.6692 µg/mL	Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/- 10.9761 µg/mL	Unstressed
	Purity 99%		+/- 18.6172 µg/mL	Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)		+/- 10.9969 µg/mL	Unstressed
	Purity 99%		+/- 18.6525 µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

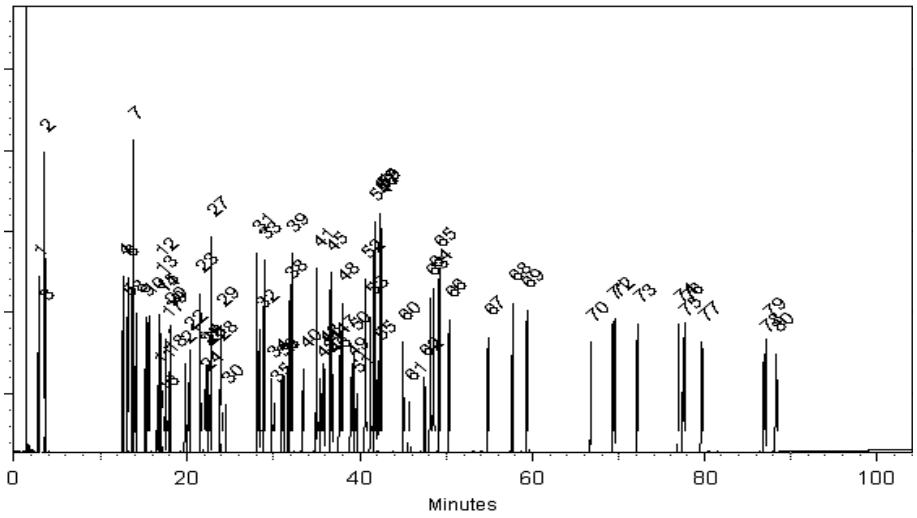
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)		+/- 10.9607 µg/mL	Unstressed
	Purity 99%		+/- 18.5912 µg/mL	Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/- 11.0166 µg/mL	Unstressed
	Purity 99%		+/- 18.6859 µg/mL	Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/- 11.0472 µg/mL	Unstressed
	Purity 99%		+/- 18.7379 µg/mL	Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/- 11.0483 µg/mL	Unstressed
	Purity 99%		+/- 18.7398 µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/- 11.0067 µg/mL	Unstressed
	Purity 99%		+/- 18.6692 µg/mL	Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/- 10.9761 µg/mL	Unstressed
	Purity 99%		+/- 18.6172 µg/mL	Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)		+/- 10.9969 µg/mL	Unstressed
	Purity 99%		+/- 18.6525 µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

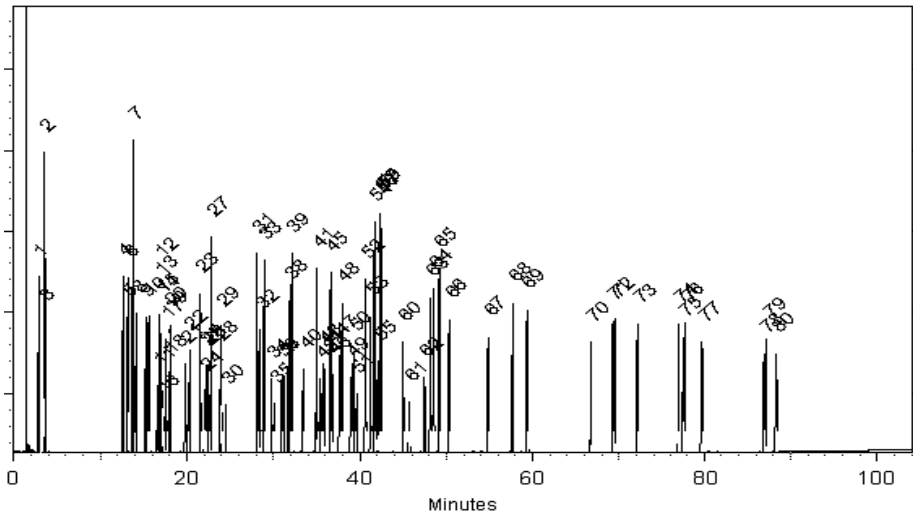
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

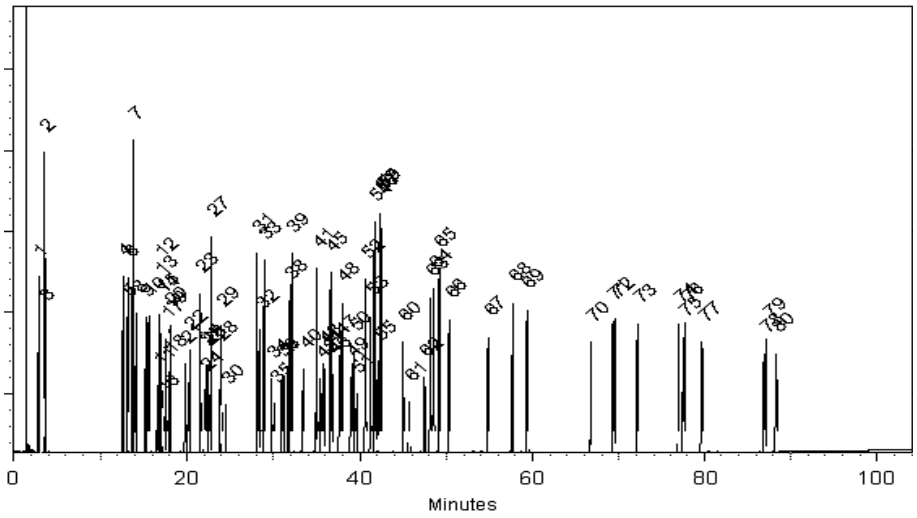
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

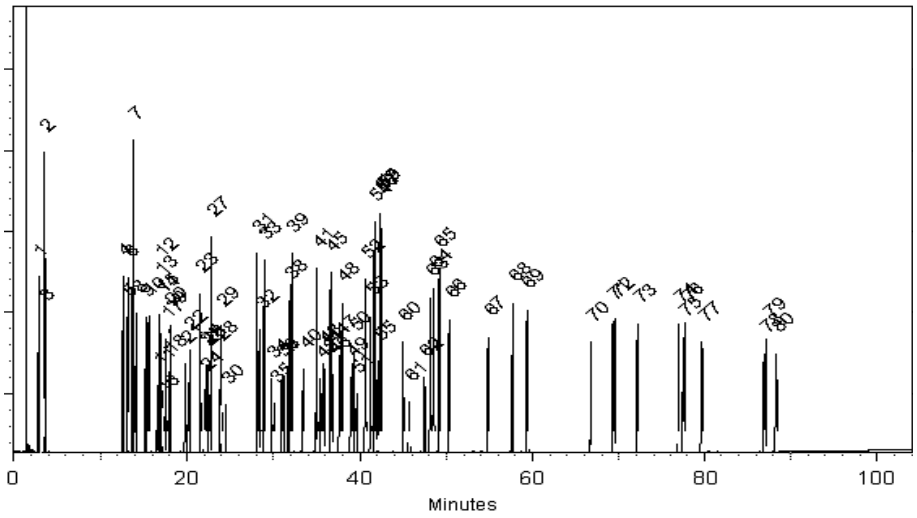
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

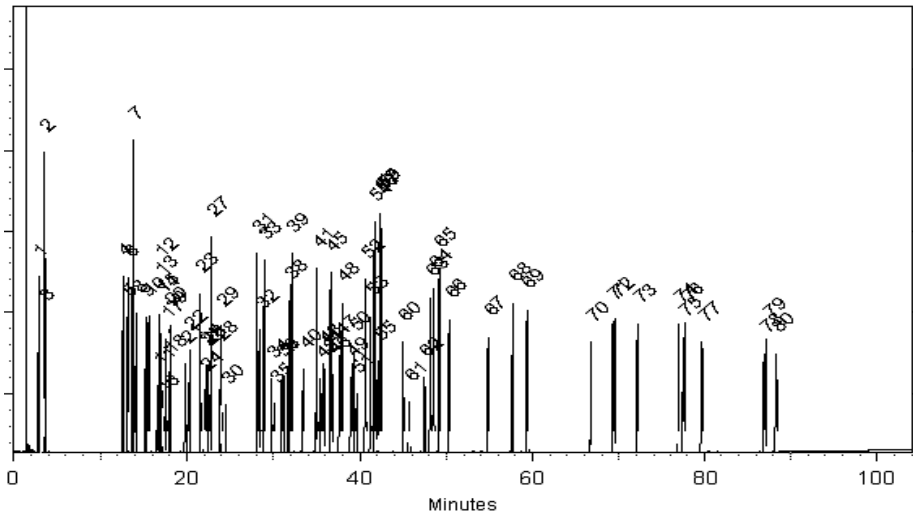
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)		+/- 10.9607 µg/mL	Unstressed
	Purity 99%		+/- 18.5912 µg/mL	Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/- 11.0166 µg/mL	Unstressed
	Purity 99%		+/- 18.6859 µg/mL	Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/- 11.0472 µg/mL	Unstressed
	Purity 99%		+/- 18.7379 µg/mL	Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/- 11.0483 µg/mL	Unstressed
	Purity 99%		+/- 18.7398 µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/- 11.0067 µg/mL	Unstressed
	Purity 99%		+/- 18.6692 µg/mL	Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/- 10.9761 µg/mL	Unstressed
	Purity 99%		+/- 18.6172 µg/mL	Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)		+/- 10.9969 µg/mL	Unstressed
	Purity 99%		+/- 18.6525 µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

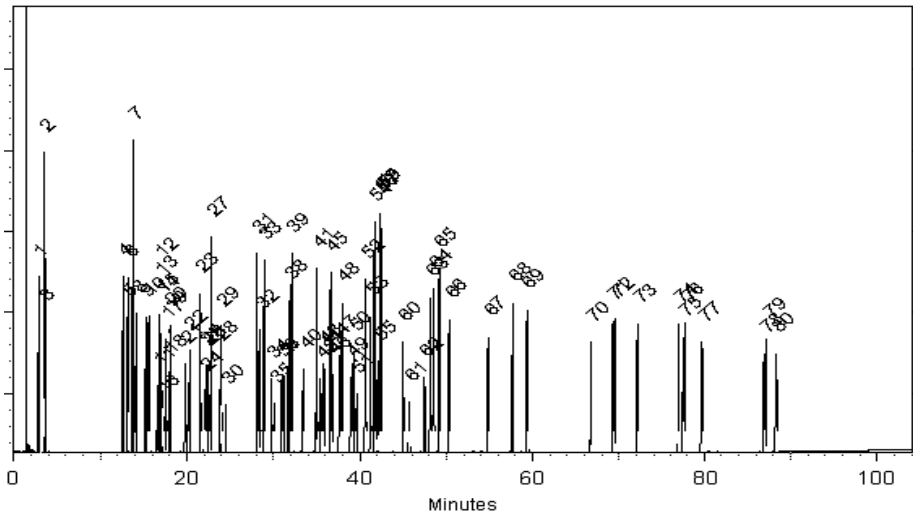
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607 µg/mL	Unstressed
	Purity 99%			+/- 18.5912 µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166 µg/mL	Unstressed
	Purity 99%			+/- 18.6859 µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472 µg/mL	Unstressed
	Purity 99%			+/- 18.7379 µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483 µg/mL	Unstressed
	Purity 99%			+/- 18.7398 µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067 µg/mL	Unstressed
	Purity 99%			+/- 18.6692 µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761 µg/mL	Unstressed
	Purity 99%			+/- 18.6172 µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969 µg/mL	Unstressed
	Purity 99%			+/- 18.6525 µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

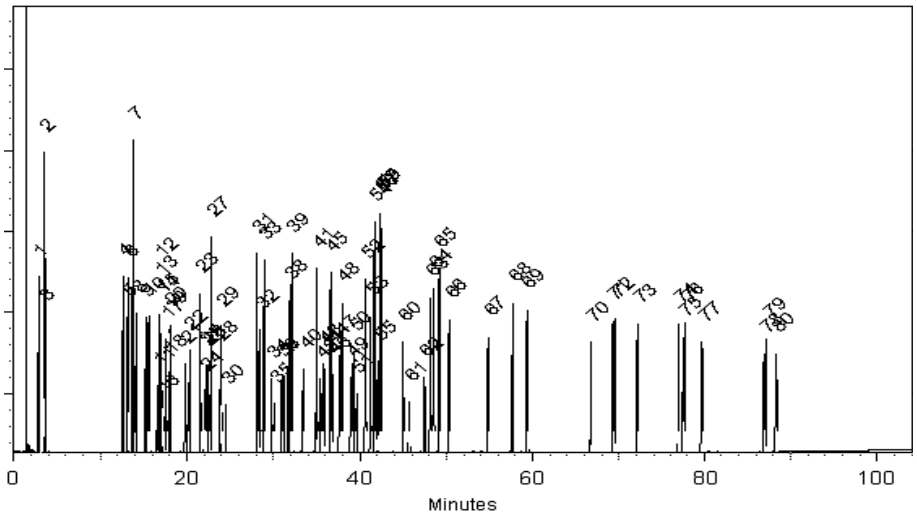
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3223477
ID: MS-569730 HSL_00001
Exp: 07/31/16 Prpd: DCK
HSLA Amine Mix (2015) 200

3223479
ID: MS-569730 AFC_00001
Exp: 07/31/16 Prpd: DCK
HSLA Amine Mix (2015) 200

Catalog No. : 569730 **Lot No.:** A0108709

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2016 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine	2,006.6 µg/mL	+/- 11.6665	µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 141208JLM)		+/- 21.9697	µg/mL	Unstressed
	Purity 99%		+/- 37.2641	µg/mL	Stressed
2	3,3'-Dichlorobenzidine	2,001.0 µg/mL	+/- 11.6340	µg/mL	Gravimetric
	CAS # 91-94-1 (Lot 141205JLM)		+/- 21.9083	µg/mL	Unstressed
	Purity 99%		+/- 37.1601	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0112567

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2017 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine	2,001.0 µg/mL	+/- 11.6337	µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 150701JLMB)		+/- 21.9078	µg/mL	Unstressed
	Purity 99%		+/- 37.1592	µg/mL	Stressed
2	3,3'-Dichlorobenzidine	2,001.5 µg/mL	+/- 11.6369	µg/mL	Gravimetric
	CAS # 91-94-1 (Lot 150701JLMA)		+/- 21.9138	µg/mL	Unstressed
	Purity 99%		+/- 37.1694	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
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Label Conditions	Standard Conditions	Non-Standard Conditions
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3231000
ID: MS-569731_00013
Exp: 07/31/16 Prpd: DCK
HSLA Benzoic Acid (2015)

Catalog No. : 569731 **Lot No.:** A0107943

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene	2,001.4 µg/mL	+/- 11.6363	µg/mL	Gravimetric
	CAS # 95-13-6 (Lot MKBP3098V)		+/- 22.5687	µg/mL	Unstressed
	Purity 99%		+/- 25.9700	µg/mL	Stressed
2	Benzoic acid	2,005.8 µg/mL	+/- 11.6619	µg/mL	Gravimetric
	CAS # 65-85-0 (Lot MKBL6689V)		+/- 22.6183	µg/mL	Unstressed
	Purity 99%		+/- 26.0271	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4 µg/mL	+/- 11.6363 µg/mL +/- 22.5687 µg/mL +/- 25.9700 µg/mL		Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1 µg/mL	+/- 11.6288 µg/mL +/- 22.5540 µg/mL +/- 25.9531 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4 µg/mL	+/- 11.6363 µg/mL +/- 22.5687 µg/mL +/- 25.9700 µg/mL		Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1 µg/mL	+/- 11.6288 µg/mL +/- 22.5540 µg/mL +/- 25.9531 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

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Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4	µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1	µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4	µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1	µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

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3230998
ID: MS-569732 HSL_00001
Exp: 08/31/16 Prpd: DCK
8270 List 1/ Std 11 (2015

Catalog No. : 569732 **Lot No.:** A0108989

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde	2,011.6 µg/mL	+/- 11.6956 µg/mL	Gravimetric
	CAS # 100-52-7 (Lot SHBD3510V)		+/- 64.4832 µg/mL	Unstressed
	Purity 99%		+/- 74.9592 µg/mL	Stressed
2	epsilon-Caprolactam	2,009.2 µg/mL	+/- 11.6817 µg/mL	Gravimetric
	CAS # 105-60-2 (Lot I16X016)		+/- 64.4062 µg/mL	Unstressed
	Purity 99%		+/- 74.8697 µg/mL	Stressed
3	Atrazine	2,001.6 µg/mL	+/- 11.6372 µg/mL	Gravimetric
	CAS # 1912-24-9 (Lot TZ8ED)		+/- 64.1611 µg/mL	Unstressed
	Purity 98%		+/- 74.5847 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzaldehyde		2,011.6 µg/mL	+/- 11.6956	µg/mL	Gravimetric
	CAS # 100-52-7	(Lot SHBD3510V)		+/- 64.4832	µg/mL	Unstressed
	Purity 99%			+/- 74.9592	µg/mL	Stressed
2	epsilon-Caprolactam		2,009.2 µg/mL	+/- 11.6817	µg/mL	Gravimetric
	CAS # 105-60-2	(Lot I16X016)		+/- 64.4062	µg/mL	Unstressed
	Purity 99%			+/- 74.8697	µg/mL	Stressed
3	Atrazine		2,001.6 µg/mL	+/- 11.6372	µg/mL	Gravimetric
	CAS # 1912-24-9	(Lot TZ8ED)		+/- 64.1611	µg/mL	Unstressed
	Purity 98%			+/- 74.5847	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

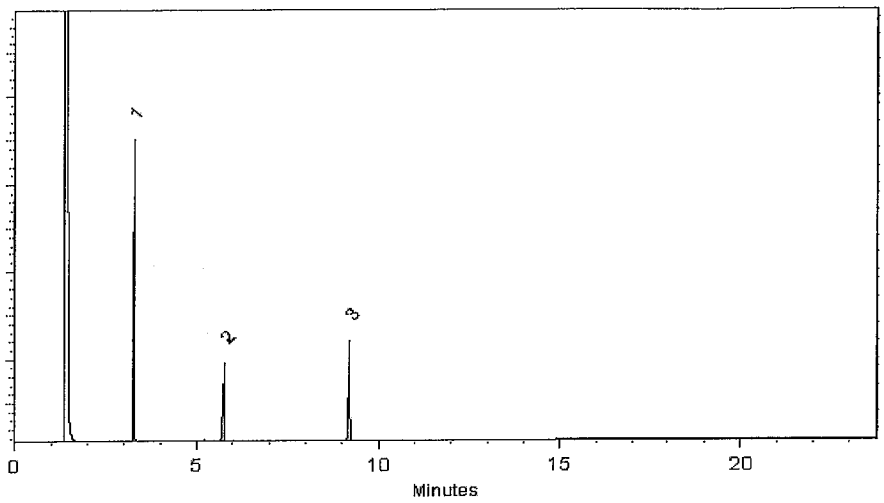
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 10-Feb-2015 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 12-Feb-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Catalog No. : 569732.sec **Lot No.:** A0108042

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

3231454
ID: MS-569732SEC_00001
Exp: 06/30/16 Prpd: DCK
RES 8270 List 1 / Std# 11

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde	2,002.0 µg/mL	+/- 11.6398 µg/mL	Gravimetric
	CAS # 100-52-7.SEC (Lot E7DWH)		+/- 64.1754 µg/mL	Unstressed
	Purity 99% Remove		+/- 74.6014 µg/mL	Stressed
2	epsilon-Caprolactam	2,001.2 µg/mL	+/- 11.6351 µg/mL	Gravimetric
	CAS # 105-60-2.SEC (Lot BLJTB)		+/- 64.1498 µg/mL	Unstressed
	Purity 99%		+/- 74.5716 µg/mL	Stressed
3	Atrazine	2,000.2 µg/mL	+/- 11.6293 µg/mL	Gravimetric
	CAS # 1912-24-9.SEC (Lot 2887600)		+/- 64.1177 µg/mL	Unstressed
	Purity 99%		+/- 74.5344 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Certification Summary

Client: Sundance Consulting, Inc
Project/Site: Fort Wingate, New Mexico

TestAmerica Job ID: 280-76048-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-15-11
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Matrix: Water Level: Low

GC Column (1): Vf-5MS (30. ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
FW102015EQU001	280-76048-2	78	74	80	77	77	77
	MB 280-302918/1-A	83	84	84	78	85	80
	LCS 280-302918/2-A	80	82	84	81	89	81

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Matrix: Water Level: Low Lab File ID: G6_20931.D

Lab ID: LCS 280-302918/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Caprolactam	80.0	70.7	88	46-143	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab File ID: G6_20932.D Lab Sample ID: MB 280-302918/1-A

Matrix: Water Date Extracted: 10/29/2015 17:15

Instrument ID: SMS_G6 Date Analyzed: 11/06/2015 19:55

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-302918/2-A	G6_20931.D	11/06/2015 19:29
FW102015EQU001	280-76048-2	G6_20946.D	11/07/2015 01:52

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab File ID: G6_20496.D DFTPP Injection Date: 10/13/2015

Instrument ID: SMS_G6 DFTPP Injection Time: 11:11

Analysis Batch No.: 300666

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	47.4	
68	Less than 2% of mass 69	0.6	(1.3)1
69	Mass 69 Relative abundance	46.2	
70	Less than 2% of mass 69	0.2	(0.5)1
127	10-80% of Base Peak	55.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.8	
275	10-60% of Base Peak	17.9	
365	Greater than 1% of mass 198	2.1	
441	present but less than 24% of mass 442	7.3	(14.4)2
442	Greater than 50% of mass 198	51.2	
443	15-24% of mass 442	9.6	(18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-300666/3	G6_20497.D	10/13/2015	11:23
	STD004 280-300666/4	G6_20498.D	10/13/2015	11:49
	STD010 280-300666/5	G6_20499.D	10/13/2015	12:15
	STD020 280-300666/6	G6_20500.D	10/13/2015	12:41
	STD050 280-300666/7	G6_20501.D	10/13/2015	13:06
	STD120 280-300666/8	G6_20502.D	10/13/2015	13:32
	STD160 280-300666/9	G6_20503.D	10/13/2015	13:58
	STD200 280-300666/10	G6_20504.D	10/13/2015	14:24
	ICV 280-300666/11	G6_20505.D	10/13/2015	14:50
	ICV 280-300666/12	G6_20506.D	10/13/2015	15:16
	ICV 280-300666/13	G6_20507.D	10/13/2015	15:42

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab File ID: G6_20925.D DFTPP Injection Date: 11/06/2015

Instrument ID: SMS_G6 DFTPP Injection Time: 17:37

Analysis Batch No.: 302954

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	45.6	
68	Less than 2% of mass 69	0.7	(1.5)1
69	Mass 69 Relative abundance	48.1	
70	Less than 2% of mass 69	0.3	(0.5)1
127	10-80% of Base Peak	55.3	
197	Less than 2% of mass 198	0.3	
198	Base peak	100.0	
199	5-9% of mass 198	6.7	
275	10-60% of Base Peak	17.9	
365	Greater than 1% of mass 198	2.0	
441	present but less than 24% of mass 442	7.3	(14.1)2
442	Greater than 50% of mass 198	51.9	
443	15-24% of mass 442	10.4	(20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-302954/3	G6_20926.D	11/06/2015	17:46
	LCS 280-302918/2-A	G6_20931.D	11/06/2015	19:29
	MB 280-302918/1-A	G6_20932.D	11/06/2015	19:55
FW102015EQU001	280-76048-2	G6_20946.D	11/07/2015	01:52

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Sample No.: ICIS 280-300666/3 Date Analyzed: 10/13/2015 11:23

Instrument ID: SMS_G6 GC Column: Vf-5MS (30.25) ID: 0.25(mm)

Lab File ID (Standard): G6_20497.D Heated Purge: (Y/N) N

Calibration ID: 24180

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		117141	4.69	446073	5.90	250793	7.66
UPPER LIMIT		234282	5.19	892146	6.40	501586	8.16
LOWER LIMIT		58571	4.19	223037	5.40	125397	7.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-300666/11		124422	4.69	482785	5.90	271762	7.65
ICV 280-300666/12		132083	4.69	490763	5.91	272869	7.66
ICV 280-300666/13		134413	4.69	507413	5.91	287464	7.66
CCV 280-302954/3		168740	4.60	625277	5.84	326629	7.59
LCS 280-302918/2-A		169035	4.60	630610	5.84	335180	7.59
MB 280-302918/1-A		183906	4.60	691881	5.83	393216	7.58
280-76048-2	FW102015EQU001	168441	4.60	627799	5.83	352148	7.58

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Sample No.: ICIS 280-300666/3 Date Analyzed: 10/13/2015 11:23

Instrument ID: SMS_G6 GC Column: Vf-5MS (30.25) ID: 0.25(mm)

Lab File ID (Standard): G6_20497.D Heated Purge: (Y/N) N

Calibration ID: 24180

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		422317	9.15	374672	13.26	330831	17.20
UPPER LIMIT		844634	9.65	749344	13.76	661662	17.70
LOWER LIMIT		211159	8.65	187336	12.76	165416	16.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-300666/11		463088	9.15	416446	13.25	368251	17.19
ICV 280-300666/12		467381	9.15	424405	13.24	382978	17.18
ICV 280-300666/13		484469	9.15	483847	13.24	421870	17.19
CCV 280-302954/3		524222	9.08	419617	13.09	355374	16.98
LCS 280-302918/2-A		546794	9.08	441638	13.08	375400	16.97
MB 280-302918/1-A		681703	9.07	581104	13.07	476985	16.96
280-76048-2	FW102015EQU001	587876	9.07	486157	13.06	400534	16.95

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76048-2

SDG No.:

Client Sample ID: FW102015EQU001 | Lab Sample ID: 280-76048-2

Matrix: Water | Lab File ID: G6_20946.D

Analysis Method: 8270D | Date Collected: 10/27/2015 09:40

Extract. Method: 3520C | Date Extracted: 10/29/2015 17:15

Sample wt/vol: 999.3(mL) | Date Analyzed: 11/07/2015 01:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 302954 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	77		42-131
321-60-8	2-Fluorobiphenyl	77		48-120
367-12-4	2-Fluorophenol (Surr)	78		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	80		42-120
4165-62-2	Phenol-d5 (Surr)	74		45-124
1718-51-0	Terphenyl-d14 (Surr)	77		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20946.D
Lims ID: 280-76048-D-2-B Lab Sample ID: 280-76048-2
Client ID: FW102015EQU001
Sample Type: Client
Inject. Date: 07-Nov-2015 01:52:30 ALS Bottle#: 21 Worklist Smp#: 36
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76048-D-2-B
Operator ID: HOEFLERA Instrument ID: SMS_G6

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 09-Nov-2015 13:01:47 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: kiekeld Date: 09-Nov-2015 12:56:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.604	4.604	0.000	96	168441	40.0	
* 2 Naphthalene-d8	136	5.834	5.840	-0.006	100	627799	40.0	
* 3 Acenaphthene-d10	164	7.581	7.587	-0.006	92	352148	40.0	
* 4 Phenanthrene-d10	188	9.069	9.075	-0.006	97	587876	40.0	
* 5 Chrysene-d12	240	13.063	13.086	-0.023	97	486157	40.0	
* 6 Perylene-d12	264	16.951	16.980	-0.029	96	400534	40.0	
$ 7 2-Fluorophenol	112	3.399	3.399	0.000	93	473687	77.8	
$ 8 Phenol-d5	99	4.234	4.234	0.000	99	568579	74.5	
$ 9 Nitrobenzene-d5	82	5.122	5.122	0.000	90	525088	80.2	
$ 10 2-Fluorobiphenyl	172	6.893	6.898	-0.005	100	932627	77.4	
$ 11 2,4,6-Tribromophenol	330	8.369	8.375	-0.006	89	99458	76.8	
$ 12 Terphenyl-d14	244	10.992	10.998	-0.006	99	810006	77.0	
62 Caprolactam	55		6.222				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

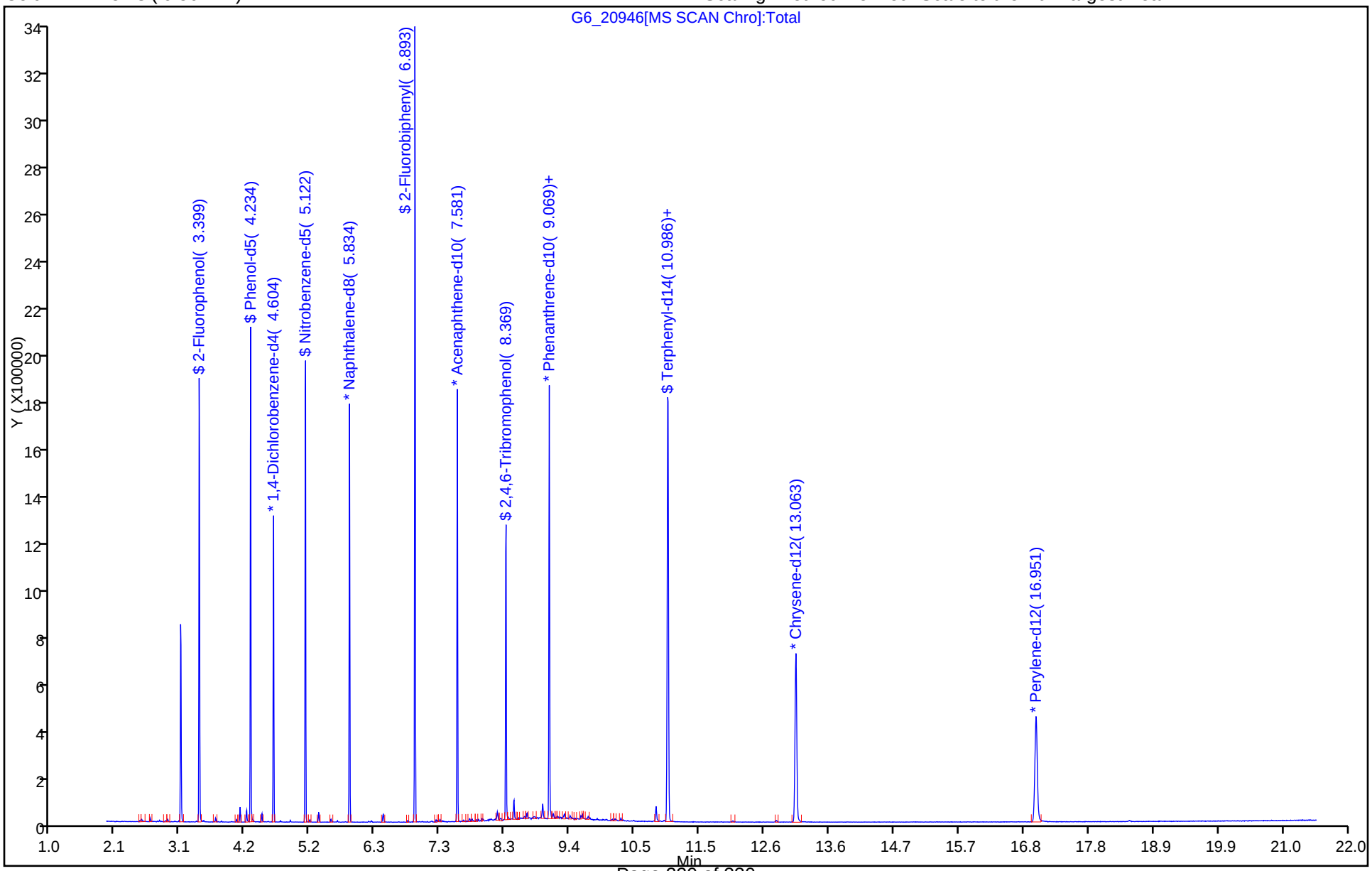
Report Date: 09-Nov-2015 13:02:53 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20946.D

Injection Date:	07-Nov-2015 01:52:30	Instrument ID:	SMS_G6	Operator ID:	HOEFLERA
Lims ID:	280-76048-D-2-B	Lab Sample ID:	280-76048-2	Worklist Smp#:	36
Client ID:	FW102015EQU001				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-300666/4	G6_20498.D
Level 2	STD010 280-300666/5	G6_20499.D
Level 3	STD020 280-300666/6	G6_20500.D
Level 4	STD050 280-300666/7	G6_20501.D
Level 5	ICIS 280-300666/3	G6_20497.D
Level 6	STD120 280-300666/8	G6_20502.D
Level 7	STD160 280-300666/9	G6_20503.D
Level 8	STD200 280-300666/10	G6_20504.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6539 0.5840	0.5921 0.5701	0.6128 0.5902	0.5970	0.6080	Ave		0.6010				4.2		20.0			
N-Nitrosodimethylamine	0.9601 0.9089	0.8948 0.9001	0.8809 0.9312	0.9148	0.9475	Ave		0.9173				3.0		20.0			
Pyridine	1.6952 1.6006	1.5916 1.5804	1.6044 1.6322	1.6492	1.6550	Ave		1.6261				2.4		20.0			
Phenol	1.9884 1.8132	1.7948 1.7654	1.7877 1.7847	1.8498	1.8667	Ave		1.8313			0.8000	3.9		20.0			
Aniline	2.3182 2.2817	2.2683 2.2392	2.2624 2.3019	2.3400	2.3871	Ave		2.2998				2.1		20.0			
Bis(2-chloroethyl)ether	1.5995 1.4120	1.4867 1.3782	1.4494 1.4068	1.4614	1.4714	Ave		1.4582			0.7000	4.7		20.0			
2-Chlorophenol	1.5851 1.4775	1.4907 1.4573	1.4862 1.4806	1.5182	1.5519	Ave		1.5059			0.8000	2.9		20.0			
1,3-Dichlorobenzene	1.7271 1.5038	1.5441 1.4597	1.5419 1.4807	1.5566	1.5623	Ave		1.5470				5.3		20.0			
1,4-Dichlorobenzene	1.6906 1.5000	1.5479 1.4873	1.5545 1.4942	1.5918	1.5994	Ave		1.5582				4.4		20.0			
Benzyl alcohol	1.0225 0.9578	0.9597 0.9562	0.9669 0.9674	0.9830	1.0041	Ave		0.9772				2.5		20.0			
1,2-Dichlorobenzene	1.6511 1.4464	1.4640 1.4248	1.4942 1.4301	1.5088	1.5124	Ave		1.4915				4.9		20.0			
2-Methylphenol	1.4297 1.3559	1.3627 1.3278	1.3461 1.3457	1.3718	1.3976	Ave		1.3672			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	2.2419 1.9629	2.1124 1.9070	2.1005 1.8817	2.0784	2.1243	Ave		2.0511			0.0100	6.0		20.0			
3 & 4 Methylphenol	1.5219 1.4279	1.4068 1.3945	1.4337 1.4127	1.4725	1.4998	Ave		1.4462				3.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
3-Methylphenol	1.5219 1.4279	1.4068 1.3945	1.4337 1.4127	1.4725	1.4998	Ave		1.4462				3.2		20.0			
4-Methylphenol	1.5219 1.4279	1.4068 1.3945	1.4337 1.4127	1.4725	1.4998	Ave		1.4462			0.6000	3.2		20.0			
N-Nitrosodi-n-propylamine	1.1599 0.9826	1.0360 0.9696	1.0214 0.9655	1.0424	1.0533	Ave		1.0288			0.5000	6.1		20.0			
Acetophenone	2.0805 1.8902	1.9959 1.8469	1.9796 1.8386	2.0280	2.0229	Ave		1.9603			0.0100	4.6		20.0			
Hexachloroethane	0.6994 0.6455	0.6502 0.6321	0.6688 0.6394	0.6729	0.6700	Ave		0.6598			0.3000	3.3		20.0			
Nitrobenzene	0.4082 0.3974	0.3918 0.3825	0.3931 0.3827	0.3960	0.3987	Ave		0.3938				2.2		20.0			
Isophorone	0.8165 0.7571	0.7504 0.7395	0.7385 0.7244	0.7551	0.7642	Ave		0.7557			0.4000	3.7		20.0			
2-Nitrophenol	0.2042 0.2083	0.2041 0.2060	0.1971 0.2039	0.2045	0.2129	Ave		0.2051			0.1000	2.2		20.0			
2,4-Dimethylphenol	0.4087 0.3772	0.3921 0.3648	0.3773 0.3560	0.3751	0.3828	Ave		0.3793			0.2000	4.2		20.0			
Benzoic acid	0.1273 0.3159	0.1810 0.3082	0.2280 0.3120	0.2644	0.2811	Lin2	-1.507	0.2948							0.9900		0.9900
Bis(2-chloroethoxy)methane	0.4805 0.4509	0.4680 0.4386	0.4576 0.4327	0.4583	0.4659	Ave		0.4566			0.3000	3.4		20.0			
2,4-Dichlorophenol	0.3165 0.3071	0.3112 0.2976	0.3062 0.2937	0.3100	0.3102	Ave		0.3066			0.2000	2.4		20.0			
1,2,4-Trichlorobenzene	0.3566 0.3130	0.3361 0.3006	0.3231 0.2971	0.3233	0.3202	Ave		0.3212				5.9		20.0			
Naphthalene	1.1882 1.0775	1.1028 1.0428	1.1026 1.0179	1.1162	1.1067	Ave		1.0943			0.7000	4.7		20.0			
4-Chloroaniline	0.5337 0.5165	0.5342 0.5003	0.5215 0.4933	0.5300	0.5313	Ave		0.5201			0.0100	3.0		20.0			
2,6-Dichlorophenol	0.3141 0.3047	0.2965 0.2961	0.2977 0.2897	0.3105	0.3105	Ave		0.3025				2.9		20.0			
Hexachlorobutadiene	0.1867 0.1655	0.1727 0.1591	0.1659 0.1561	0.1702	0.1682	Ave		0.1680			0.0100	5.5		20.0			
Caprolactam	0.1873 0.2120	0.1955 0.2080	0.1867 0.2079	0.2002	0.2156	Ave		0.2016				5.5		20.0			
4-Chloro-3-methylphenol	0.3431 0.3228	0.3214 0.3176	0.3239 0.3102	0.3300	0.3279	Ave		0.3246			0.2000	3.0		20.0			
2-Methylnaphthalene	0.8246 0.7179	0.7705 0.6969	0.7520 0.6727	0.7464	0.7373	Ave		0.7398			0.4000	6.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1-Methylnaphthalene	0.7068 0.6351	0.6645 0.6135	0.6548 0.6025	0.6562	0.6584	Ave		0.6490				5.0		20.0			
Hexachlorocyclopentadiene	0.3339 0.3400	0.3390 0.3263	0.3402 0.3300	0.3527	0.3661	Ave		0.3410			0.0500	3.8		20.0			
1,2,4,5-Tetrachlorobenzene	0.3352 0.2825	0.3079 0.2679	0.3049 0.2602	0.2959	0.2926	Ave		0.2934			0.0100	8.1		20.0			
2,4,6-Trichlorophenol	0.3713 0.3462	0.3704 0.3360	0.3631 0.3313	0.3752	0.3671	Ave		0.3576			0.2000	4.8		20.0			
2,4,5-Trichlorophenol	0.3989 0.3923	0.3968 0.3765	0.3757 0.3788	0.4007	0.4005	Ave		0.3900			0.2000	2.9		20.0			
1,1'-Biphenyl	1.6597 1.4802	1.5943 1.4218	1.5477 1.4218	1.5776	1.5455	Ave		1.5311				5.5		20.0			
2-Chloronaphthalene	1.3129 1.1148	1.1815 1.0749	1.1634 1.0689	1.1910	1.1788	Ave		1.1608			0.8000	6.7		20.0			
2-Nitroaniline	0.4337 0.4123	0.4046 0.4023	0.4025 0.4049	0.4215	0.4248	Ave		0.4133			0.0100	2.9		20.0			
Dimethyl phthalate	1.7145 1.2880	1.4508 1.2433	1.3545 1.2505	1.3470	1.3632	Ave		1.3765			0.0100	11.1		20.0			
1,3-Dinitrobenzene	0.2150 0.2531	0.2237 0.2497	0.2391 0.2545	0.2519	0.2581	Ave		0.2431				6.5		20.0			
2,6-Dinitrotoluene	0.3301 0.3122	0.3327 0.3046	0.3071 0.3079	0.3305	0.3296	Ave		0.3193			0.2000	3.9		20.0			
Acenaphthylene	2.1145 1.9428	2.0481 1.8648	2.0088 1.8598	2.0330	2.0467	Ave		1.9898			0.9000	4.6		20.0			
3-Nitroaniline	0.4039 0.4110	0.4034 0.4076	0.4045 0.4116	0.4277	0.4324	Ave		0.4128			0.0100	2.7		20.0			
Acenaphthene	1.3120 1.1595	1.2392 1.1078	1.2195 1.1014	1.2260	1.2152	Ave		1.1976			0.9000	5.9		20.0			
2,4-Dinitrophenol	+++++ 0.2193	0.1767 0.2208	0.1856 0.2244	0.2223	0.2262	Ave		0.2108			0.0100	9.7		20.0			
4-Nitrophenol	0.2098 0.2042	0.1975 0.2001	0.1980 0.2013	0.2119	0.2124	Ave		0.2044			0.0100	3.0		20.0			
2,4-Dinitrotoluene	0.4318 0.4225	0.4251 0.4175	0.4191 0.4166	0.4470	0.4382	Ave		0.4272			0.2000	2.6		20.0			
Dibenzofuran	1.9420 1.6809	1.8057 1.6082	1.7330 1.6085	1.7675	1.7586	Ave		1.7380			0.8000	6.3		20.0			
2,3,4,6-Tetrachlorophenol	0.2954 0.3173	0.2951 0.3059	0.3037 0.3086	0.3253	0.3241	Ave		0.3094			0.0100	3.8		20.0			
Diethyl phthalate	1.5912 1.3379	1.4454 1.2755	1.4225 1.2146	1.4265	1.4133	Ave		1.3909			0.0100	8.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
4-Chlorophenyl phenyl ether	0.7141 0.5845	0.6650 0.5819	0.6085 0.5711	0.6260	0.6183	Ave		0.6212			0.4000	7.7		20.0			
Fluorene	1.6152 1.3315	1.4765 1.2666	1.3957 1.2695	1.4047	1.4139	Ave		1.3967			0.9000	8.2		20.0			
4-Nitroaniline	0.4137 0.4060	0.4082 0.4101	0.4101 0.4141	0.4248	0.4237	Ave		0.4139			0.0100	1.7		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1514	0.1236 0.1495	0.1402 0.1474	0.1484	0.1502	Ave		0.1444			0.0100	6.8		20.0			
N-Nitrosodiphenylamine	0.6780 0.5695	0.6213 0.5463	0.6207 0.5216	0.6159	0.6076	Ave		0.5976			0.0100	8.3		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.5780 1.4114	1.4949 1.3747	1.4337 1.3619	1.4826	1.5026	Ave		1.4550				5.0		20.0			
Azobenzene	1.5953 1.4269	1.5113 1.3898	1.4494 1.3768	1.4989	1.5191	Ave		1.4709				5.0		20.0			
4-Bromophenyl phenyl ether	0.1969 0.1895	0.2025 0.1908	0.2064 0.1851	0.1973	0.1983	Ave		0.1958			0.1000	3.6		20.0			
Hexachlorobenzene	0.2106 0.1953	0.1996 0.1927	0.2007 0.1870	0.2079	0.2023	Ave		0.1995			0.1000	3.9		20.0			
Pentachlorophenol	0.1037 0.1265	0.1053 0.1269	0.1176 0.1245	0.1284	0.1321	Ave		0.1206			0.0500	8.9		20.0			
Phenanthrene	1.3063 1.1232	1.2036 1.1149	1.2091 1.0637	1.1970	1.1964	Ave		1.1768			0.7000	6.3		20.0			
Anthracene	1.2851 1.1621	1.2009 1.1339	1.1952 1.0905	1.2103	1.2095	Ave		1.1860			0.7000	4.9		20.0			
Carbazole	1.2555 1.1738	1.2324 1.1537	1.2322 1.1079	1.2235	1.2337	Ave		1.2016			0.0100	4.2		20.0			
Di-n-butyl phthalate	1.5161 1.4006	1.4370 1.3848	1.4337 1.3379	1.4751	1.4845	Ave		1.4337			0.0100	4.1		20.0			
Fluoranthene	1.3718 1.2459	1.2941 1.2318	1.2901 1.1939	1.2889	1.3034	Ave		1.2775			0.6000	4.2		20.0			
Pyrene	1.5637 1.4498	1.4487 1.4215	1.4732 1.4067	1.4982	1.5210	Ave		1.4729			0.6000	3.6		20.0			
Famphur	0.4686 0.4795	0.4538 0.4496	0.4773 0.4351	0.4937	0.5113	Ave		0.4711				5.3		20.0			
Butyl benzyl phthalate	0.7384 0.7411	0.6933 0.7295	0.6966 0.7296	0.7290	0.7689	Ave		0.7283			0.0100	3.3		20.0			
3,3'-Dichlorobenzidine	0.3931 0.3880	0.3559 0.3883	0.3515 0.3894	0.3755	0.3987	Ave		0.3800			0.0100	4.6		20.0			
Benzo[a]anthracene	1.3282 1.2772	1.2618 1.2593	1.2623 1.2565	1.2873	1.3221	Ave		1.2818			0.8000	2.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Chrysene	1.3260 1.2426	1.2585 1.2183	1.2302 1.2065	1.2574	1.2742	Ave		1.2517			0.7000	3.0		20.0			
Bis(2-ethylhexyl) phthalate	0.9242 0.9797	0.8888 0.9871	0.9061 0.9852	0.9657	1.0301	Ave		0.9584			0.0100	5.0		20.0			
Di-n-octyl phthalate	1.4769 1.7395	1.4549 1.7146	1.5151 1.7477	1.6578	1.7987	Ave		1.6382			0.0100	8.3		20.0			
Benzo[b]fluoranthene	1.2684 1.2477	1.1766 1.2626	1.2032 1.2561	1.2804	1.3236	Ave		1.2523			0.7000	3.6		20.0			
Benzo[k]fluoranthene	1.2654 1.3349	1.2525 1.3033	1.3045 1.2586	1.3022	1.3531	Ave		1.2968			0.7000	2.8		20.0			
Benzo[a]pyrene	1.2092 1.2961	1.1825 1.2699	1.1912 1.2427	1.2772	1.3268	Ave		1.2495			0.7000	4.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8981 0.9354	0.8185 0.9478	0.8739 0.9577	0.9317	0.9496	Ave		0.9141			0.5000	5.2		20.0			
Dibenz(a,h)anthracene	0.8053 1.0294	0.9041 1.0333	0.9328 1.0430	0.9946	1.0426	Ave		0.9731			0.4000	8.8		20.0			
Benzo[g,h,i]perylene	1.0812 1.1448	1.0801 1.1314	1.0753 1.1192	1.1405	1.1625	Ave		1.1169			0.5000	3.0		20.0			
2-Fluorophenol (Surr)	1.5206 1.4289	1.4274 1.3952	1.4278 1.4208	1.4638	1.4755	Ave		1.4450				2.7		20.0			
Phenol-d5 (Surr)	1.8665 1.7844	1.8064 1.7744	1.7819 1.8012	1.8344	1.8563	Ave		1.8132				1.9		20.0			
Nitrobenzene-d5 (Surr)	0.4444 0.4153	0.4124 0.4077	0.4016 0.4050	0.4233	0.4260	Ave		0.4170				3.3		20.0			
2-Fluorobiphenyl	1.5190 1.3218	1.4326 1.2654	1.3911 1.2516	1.3858	1.3757	Ave		1.3679				6.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1419 0.1465	0.1478 0.1462	0.1432 0.1488	0.1526	0.1499	Ave		0.1471				2.4		20.0			
Terphenyl-d14 (Surr)	0.9144 0.8549	0.8695 0.8349	0.8596 0.8258	0.8797	0.8893	Ave		0.8660				3.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-300666/4	G6_20498.D
Level 2	STD010 280-300666/5	G6_20499.D
Level 3	STD020 280-300666/6	G6_20500.D
Level 4	STD050 280-300666/7	G6_20501.D
Level 5	ICIS 280-300666/3	G6_20497.D
Level 6	STD120 280-300666/8	G6_20502.D
Level 7	STD160 280-300666/9	G6_20503.D
Level 8	STD200 280-300666/10	G6_20504.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	7735 211917	18118 289848	35978 372270	90788	142438	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodimethylamine	DCB	Ave	11358 329822	27379 457686	51713 587395	139128	221983	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyridine	DCB	Ave	20054 580866	48703 803569	94194 1029506	250810	387741	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol	DCB	Ave	23523 657991	54921 897620	104950 1125729	281308	437334	4.00 120	10.0 160	20.0 200	50.0	80.0
Aniline	DCB	Ave	27424 828020	69407 1138552	132823 1451931	355861	559249	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	18922 512404	45493 700778	85090 887382	222248	344728	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chlorophenol	DCB	Ave	18752 536179	45613 740982	87253 933891	230877	363592	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	20432 545718	47247 742210	90524 933969	236717	366022	4.00 120	10.0 160	20.0 200	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	20000 544342	47366 756233	91259 942480	242081	374714	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzyl alcohol	DCB	Ave	12096 347577	29366 486191	56765 610192	149491	235248	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	19532 524876	44798 724435	87721 902062	229450	354333	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylphenol	DCB	Ave	16913 492037	41698 675117	79028 848825	208615	327436	4.00 120	10.0 160	20.0 200	50.0	80.0
bis (2-chloroisopropyl) ether	DCB	Ave	26521 712330	64637 969645	123316 1186902	316082	497686	4.00 120	10.0 160	20.0 200	50.0	80.0
3 & 4 Methylphenol	DCB	Ave	18004 518160	43046 709057	84167 891089	223929	351377	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Methylphenol	DCB	Ave	18004 518160	43046 709057	84167 891089	223929	351377	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4-Methylphenol	DCB	Ave	18004 518160	43046 709057	84167 891089	223929	351377	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodi-n-propylamine	DCB	Ave	13722 356573	31700 493017	59964 608968	158518	246761	4.00 120	10.0 160	20.0 200	50.0	80.0
Acetophenone	DCB	Ave	24612 685927	61074 939063	116218 1159693	308418	473935	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachloroethane	DCB	Ave	8274 234236	19897 321388	39263 403324	102333	156960	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene	NPT	Ave	18182 537864	44956 735421	86904 934693	228793	355671	4.00 120	10.0 160	20.0 200	50.0	80.0
Isophorone	NPT	Ave	36370 1024738	86097 1421951	163258 1769403	436302	681815	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitrophenol	NPT	Ave	9097 281978	23413 396116	43560 497977	118135	189955	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	18205 510534	44987 701564	83399 869669	216751	341503	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzoic acid	NPT	Lin2	11340 855134	41528 1185259	100786 1524074	305508	501565	8.00 240	20.0 320	40.0 400	100	160
Bis(2-chloroethoxy)methane	NPT	Ave	21401 610299	53696 843326	101158 1056907	264810	415627	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dichlorophenol	NPT	Ave	14098 415618	35701 572336	67686 717357	179139	276707	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	15884 423616	38562 577994	71413 725757	186814	285695	4.00 120	10.0 160	20.0 200	50.0	80.0
Naphthalene	NPT	Ave	52925 1458464	126530 2005214	243742 2486190	644933	987303	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloroaniline	NPT	Ave	23771 699114	61292 962113	115281 1204936	306238	473971	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dichlorophenol	NPT	Ave	13990 412418	34021 569393	65799 707526	179395	276993	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobutadiene	NPT	Ave	8315 223977	19817 305945	36675 381258	98338	150048	4.00 120	10.0 160	20.0 200	50.0	80.0
Caprolactam	NPT	Ave	8343 286883	22435 399926	41264 507895	115684	192348	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	15281 436875	36874 610728	71594 757685	190673	292500	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylnaphthalene	NPT	Ave	36732 971626	88400 1340130	166231 1643069	431242	657745	4.00 120	10.0 160	20.0 200	50.0	80.0
1-Methylnaphthalene	NPT	Ave	31483 859556	76242 1179689	144746 1471732	379169	587370	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	8450 263926	22020 360725	42780 451637	114044	183621	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4,5-Tetrachlorobenzene	NPT	Ave	14932 382386	35328 515163	67401 635634	170964	261070	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	9398 268777	24058 371467	45660 453444	121348	184152	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,5-Trichlorophenol	ANT	Ave	10095 304579	25775 416283	47236 518487	129589	200898	4.00 120	10.0 160	20.0 200	50.0	80.0
1,1'-Biphenyl	ANT	Ave	42005 1149092	103564 1571938	194607 1946049	510159	775181	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chloronaphthalene	ANT	Ave	33226 865433	76748 1188463	146287 1463053	385158	591283	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitroaniline	ANT	Ave	10977 320083	26284 444742	50610 554157	136302	213055	4.00 120	10.0 160	20.0 200	50.0	80.0
Dimethyl phthalate	ANT	Ave	43390 999937	94243 1374581	170321 1711526	435607	683785	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dinitrobenzene	ANT	Ave	5441 196512	14533 276045	30071 348362	81455	129467	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	8355 242351	21609 336787	38618 421483	106888	165306	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthylene	ANT	Ave	53515 1508290	133039 2061724	252586 2545547	657419	1026621	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Nitroaniline	ANT	Ave	10223 319062	26206 450609	50857 563425	138309	216903	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthene	ANT	Ave	33204 900157	80494 1224814	153345 1507511	396466	609505	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dinitrophenol	ANT	Ave	+++++ 340533	22960 488242	46682 614283	143749	226919	+++++ 240	20.0 320	40.0 400	100	160
4-Nitrophenol	ANT	Ave	10621 317083	25657 442581	49794 551161	137047	213083	8.00 240	20.0 320	40.0 400	100	160
2,4-Dinitrotoluene	ANT	Ave	10928 327993	27612 461607	52701 570251	144564	219790	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenzofuran	ANT	Ave	49148 1304931	117292 1778106	217906 2201617	571578	882077	4.00 120	10.0 160	20.0 200	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	7477 246356	19172 338223	38187 422378	105183	162543	4.00 120	10.0 160	20.0 200	50.0	80.0
Diethyl phthalate	ANT	Ave	40271 1038640	93890 1410178	178863 1662414	461293	708900	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	18072 453793	43197 643360	76514 781670	202421	310149	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluorene	ANT	Ave	40877 1033669	95907 1400397	175497 1737505	454237	709184	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Nitroaniline	ANT	Ave	10471 315211	26515 453437	51567 566834	137376	212518	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Ave	+++++ 394504	27695 542648	59367 681408	162759	253679	+++++ 240	20.0 320	40.0 400	100	160
N-Nitrosodiphenylamine	PHN	Ave	59276 1483809	139189 1983095	262796 2411199	675299	1026385	8.00 240	20.0 320	40.0 400	100	160
1,2-Diphenylhydrazine(as Azobenzene)	ANT	Ave	40374 1107774	98170 1536590	182254 1884459	484706	761960	4.04 121	10.1 162	20.2 202	50.5	80.9
Azobenzene	ANT	Ave	40374 1107774	98170 1536590	182254 1884459	484706	761960	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	8606 246838	22682 346248	43705 427788	108153	167522	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobenzene	PHN	Ave	9207 254421	22355 349817	42497 432305	113974	170905	4.00 120	10.0 160	20.0 200	50.0	80.0
Pentachlorophenol	PHN	Ave	9065 329633	23588 460756	49802 575366	140766	223224	8.00 240	20.0 320	40.0 400	100	160
Phenanthrene	PHN	Ave	57101 1463238	134833 2023597	255983 2458817	656219	1010506	4.00 120	10.0 160	20.0 200	50.0	80.0
Anthracene	PHN	Ave	56175 1513969	134529 2058108	253044 2520705	663527	1021604	4.00 120	10.0 160	20.0 200	50.0	80.0
Carbazole	PHN	Ave	54878 1529223	138062 2094042	260870 2561037	670736	1041993	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	66270 1824671	160977 2513524	303519 3092482	808652	1253830	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluoranthene	PHN	Ave	59962 1623164	144967 2235735	273117 2759776	706602	1100922	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyrene	CRY	Ave	61295 1685475	146822 2333809	285234 2879152	742846	1139766	4.00 120	10.0 160	20.0 200	50.0	80.0
Famphur	CRY	Ave	18369 557407	45991 738098	92404 890510	244769	383175	4.00 120	10.0 160	20.0 200	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	28945 861589	70270 1197658	134872 1493344	361442	576146	4.00 120	10.0 160	20.0 200	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	15408 451086	36069 637523	68065 796912	186183	298761	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]anthracene	CRY	Ave	52063 1484804	127879 2067517	244398 2571868	638267	990674	4.00 120	10.0 160	20.0 200	50.0	80.0
Chrysene	CRY	Ave	51977 1444589	127544 2000180	238191 2469473	623444	954797	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	36227 1138905	90081 1620539	175443 2016398	478837	771936	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-octyl phthalate	CRY	Ave	57892 2022254	147453 2814996	293356 3577130	821972	1347856	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	44918 1295271	106015 1841962	208255 2348789	564295	875764	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76048-2 Analy Batch No.: 300666

SDG No.:

Instrument ID: SMS_G6 GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/13/2015 11:23 Calibration End Date: 10/13/2015 14:24 Calibration ID: 24180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzo[k]fluoranthene	PRY	Ave	44810 1385854	112854 1901358	225793 2353328	573904	895280	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]pyrene	PRY	Ave	42820 1345585	106542 1852727	206188 2323584	562900	877882	4.00 120	10.0 160	20.0 200	50.0	80.0
Indeno[1,2,3-cd]pyrene	CRY	Ave	35204 1087459	82959 1556042	169205 1960220	461943	711594	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	28518 1068654	81462 1507548	161456 1950327	438356	689832	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	38289 1188479	97319 1650647	186124 2092801	502657	769171	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorophenol (Surr)	DCB	Ave	17988 518529	43676 709415	83825 896161	222616	345681	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol-d5 (Surr)	DCB	Ave	22080 647542	55275 902211	104611 1136139	278968	434900	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	19797 562167	47318 783985	88786 989283	244593	380059	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	38444 1026144	93060 1399079	174919 1713110	448154	690035	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Ave	3592 113742	9603 161603	18001 203701	49334	75164	4.00 120	10.0 160	20.0 200	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	35842 993883	88122 1370801	166436 1690320	436172	666395	4.00 120	10.0 160	20.0 200	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20497.D
Lims ID: ICIS HSL
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 13-Oct-2015 11:23:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICIS HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:32:47 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:29:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	117141	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	446073	40.0	40.0	
* 3 Acenaphthene-d10	164	7.657	7.657	0.000	91	250793	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	422317	40.0	40.0	
* 5 Chrysene-d12	240	13.257	13.257	0.000	98	374672	40.0	40.0	
* 6 Perylene-d12	264	17.198	17.198	0.000	96	330831	40.0	40.0	
$ 7 2-Fluorophenol	112	3.522	3.522	0.000	93	345681	80.0	81.7	
$ 8 Phenol-d5	99	4.310	4.310	0.000	99	434900	80.0	81.9	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	90	380059	80.0	81.7	
$ 10 2-Fluorobiphenyl	172	6.963	6.963	0.000	100	690035	80.0	80.5	
$ 11 2,4,6-Tribromophenol	330	8.451	8.451	0.000	92	75164	80.0	81.5	
$ 12 Terphenyl-d14	244	11.122	11.122	0.000	98	666395	80.0	82.2	
13 1,4-Dioxane	88	2.240	2.240	0.000	99	142438	80.0	80.9	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	93	221983	80.0	82.6	
15 Pyridine	79	2.499	2.499	0.000	91	387741	80.0	81.4	
23 Phenol	94	4.322	4.322	0.000	99	437334	80.0	81.5	
24 Aniline	93	4.375	4.375	0.000	98	559249	80.0	83.0	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	344728	80.0	80.7	
26 2-Chlorophenol	128	4.493	4.493	0.000	97	363592	80.0	82.4	
27 1,3-Dichlorobenzene	146	4.640	4.640	0.000	98	366022	80.0	80.8	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	94	374714	80.0	82.1	
29 Benzyl alcohol	108	4.793	4.793	0.000	93	235248	80.0	82.2	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	96	354333	80.0	81.1	
31 2-Methylphenol	108	4.887	4.887	0.000	95	327436	80.0	81.8	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	94	497686	80.0	82.9	
38 3 & 4 Methylphenol	108	5.028	5.028	0.000	98	351377	80.0	83.0	
39 3-Methylphenol	108	5.028	5.028	0.000	98	351377	80.0	83.0	
40 4-Methylphenol	108	5.028	5.028	0.000	96	351377	80.0	83.0	
41 N-Nitrosodi-n-propylamine	70	5.046	5.046	0.000	92	246761	80.0	81.9	
42 Acetophenone	105	5.051	5.051	0.000	96	473935	80.0	82.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.175	5.175	0.000	95	156960	80.0	81.2	
44 Nitrobenzene	77	5.216	5.216	0.000	90	355671	80.0	81.0	
46 Isophorone	82	5.446	5.446	0.000	99	681815	80.0	80.9	
48 2-Nitrophenol	139	5.528	5.528	0.000	94	189955	80.0	83.0	
49 2,4-Dimethylphenol	107	5.546	5.546	0.000	94	341503	80.0	80.7	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	415627	80.0	81.6	
52 Benzoic acid	105	5.646	5.646	0.000	90	501565	160.0	157.7	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	276707	80.0	80.9	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	95	285695	80.0	79.7	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	97	276993	80.0	82.1	
57 Naphthalene	128	5.928	5.928	0.000	97	987303	80.0	80.9	
58 4-Chloroaniline	127	5.963	5.963	0.000	96	473971	80.0	81.7	
59 Hexachlorobutadiene	225	6.057	6.057	0.000	97	150048	80.0	80.1	
62 Caprolactam	55	6.293	6.293	0.000	78	192348	80.0	85.5	M
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	292500	80.0	80.8	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	657745	80.0	79.7	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	587370	80.0	81.2	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	95	183621	80.0	85.9	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	0.000	98	261070	80.0	79.8	
70 2,4,6-Trichlorophenol	196	6.887	6.887	0.000	86	184152	80.0	82.1	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	94	200898	80.0	82.2	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	775181	80.0	80.8	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	97	591283	80.0	81.2	
77 2-Nitroaniline	65	7.187	7.187	0.000	87	213055	80.0	82.2	
79 Dimethyl phthalate	163	7.363	7.363	0.000	98	683785	80.0	79.2	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	85	129467	80.0	84.9	
81 2,6-Dinitrotoluene	165	7.422	7.422	0.000	96	165306	80.0	82.6	
82 Acenaphthylene	152	7.516	7.516	0.000	99	1026621	80.0	82.3	
83 3-Nitroaniline	138	7.592	7.592	0.000	95	216903	80.0	83.8	
84 Acenaphthene	153	7.687	7.687	0.000	94	609505	80.0	81.2	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	83	226919	160.0	171.7	
87 4-Nitrophenol	109	7.745	7.745	0.000	94	213083	160.0	166.3	
89 2,4-Dinitrotoluene	165	7.834	7.834	0.000	92	219790	80.0	82.1	
90 Dibenzofuran	168	7.863	7.863	0.000	97	882077	80.0	80.9	
92 2,3,4,6-Tetrachlorophenol	232	7.987	7.987	0.000	76	162543	80.0	83.8	
94 Diethyl phthalate	149	8.063	8.063	0.000	98	708900	80.0	81.3	
96 4-Chlorophenyl phenyl ethe	204	8.192	8.192	0.000	92	310149	80.0	79.6	
98 Fluorene	166	8.204	8.204	0.000	96	709184	80.0	81.0	
99 4-Nitroaniline	138	8.210	8.210	0.000	85	212518	80.0	81.9	
100 4,6-Dinitro-2-methylphenol	198	8.245	8.245	0.000	80	253679	160.0	166.4	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	63	1026385	160.0	162.7	
103 Azobenzene	77	8.351	8.351	0.000	99	761960	80.0	82.6	
104 1,2-Diphenylhydrazine	77	8.351	8.351	0.000	100	761960	80.9	83.5	
111 4-Bromophenyl phenyl ether	248	8.686	8.686	0.000	70	167522	80.0	81.0	
112 Hexachlorobenzene	284	8.781	8.781	0.000	92	170905	80.0	81.1	
116 Pentachlorophenol	266	8.963	8.963	0.000	89	223224	160.0	175.3	
119 Phenanthrene	178	9.181	9.181	0.000	98	1010506	80.0	81.3	
120 Anthracene	178	9.228	9.228	0.000	98	1021604	80.0	81.6	
122 Carbazole	167	9.381	9.381	0.000	95	1041993	80.0	82.1	
123 Di-n-butyl phthalate	149	9.722	9.722	0.000	100	1253830	80.0	82.8	
128 Fluoranthene	202	10.563	10.563	0.000	98	1100922	80.0	81.6	
131 Pyrene	202	10.898	10.898	0.000	97	1139766	80.0	82.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.892	11.892	0.000	98	383175	80.0	86.8	
137 Butyl benzyl phthalate	149	12.016	12.016	0.000	97	576146	80.0	84.5	
140 3,3'-Dichlorobenzidine	252	13.180	13.180	0.000	76	298761	80.0	83.9	
141 Benzo[a]anthracene	228	13.233	13.233	0.000	99	990674	80.0	82.5	
142 Bis(2-ethylhexyl) phthalat	149	13.392	13.392	0.000	97	771936	80.0	86.0	
143 Chrysene	228	13.316	13.316	0.000	98	954797	80.0	81.4	
144 Di-n-octyl phthalate	149	15.186	15.186	0.000	99	1347856	80.0	87.8	
146 Benzo[b]fluoranthene	252	16.104	16.104	0.000	99	875764	80.0	84.6	
147 Benzo[k]fluoranthene	252	16.186	16.186	0.000	98	895280	80.0	83.5	
148 Benzo[a]pyrene	252	17.033	17.033	0.000	80	877882	80.0	85.0	
151 Indeno[1,2,3-cd]pyrene	276	20.321	20.321	0.000	97	711594	80.0	83.1	
152 Dibenz(a,h)anthracene	278	20.409	20.409	0.000	96	689832	80.0	85.7	
153 Benzo[g,h,i]perylene	276	21.056	21.056	0.000	96	769171	80.0	83.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA080_00020 Amount Added: 200.00 Units: uL

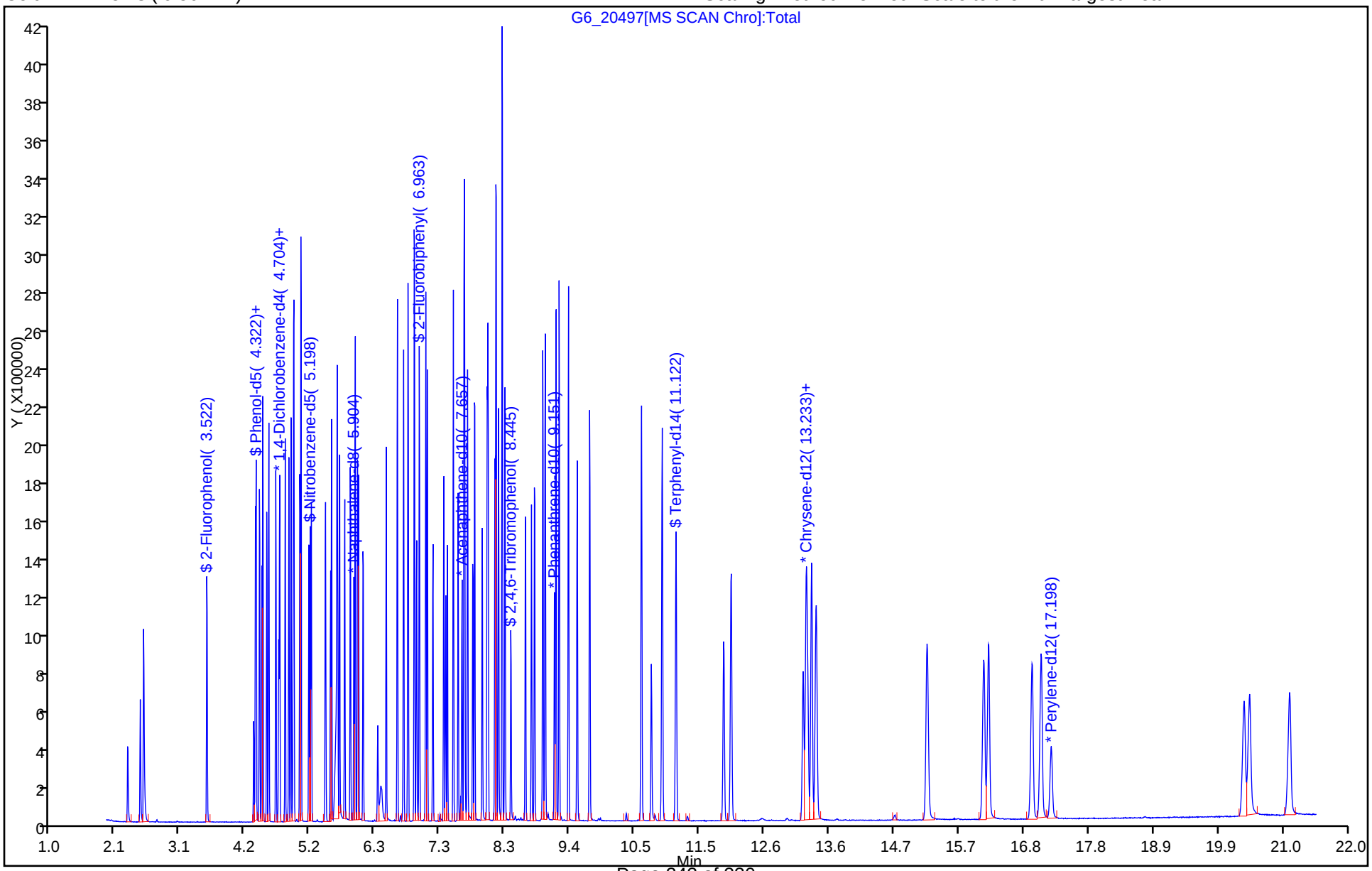
Report Date: 23-Oct-2015 07:32:49 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20497.D

Injection Date:	13-Oct-2015 11:23:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	ICIS HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

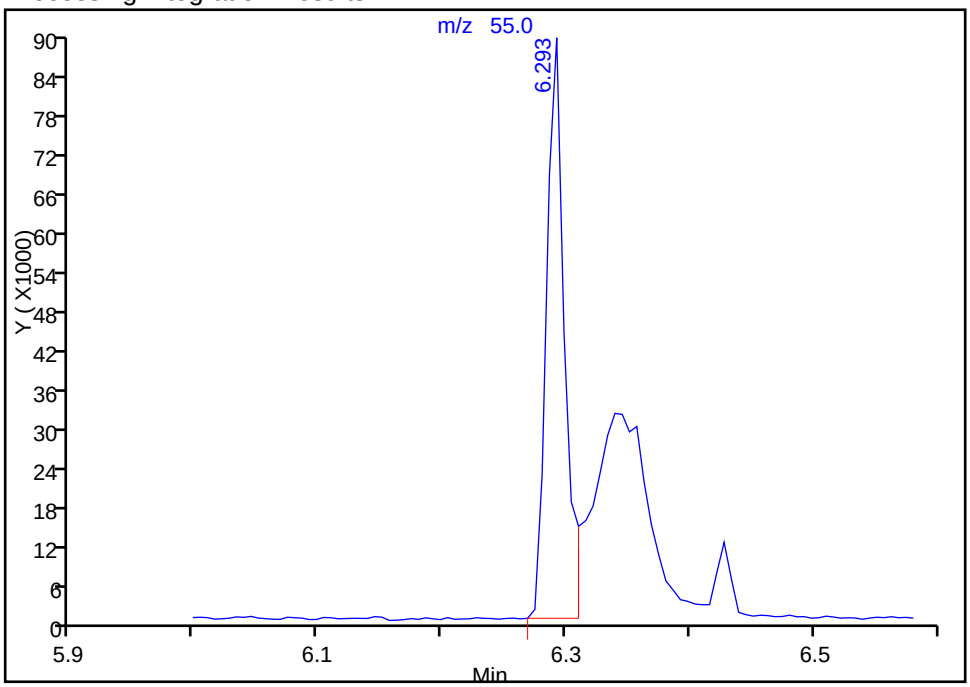
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20497.D
Injection Date: 13-Oct-2015 11:23:30 Instrument ID: SMS_G6
Lims ID: ICIS HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

62 Caprolactam, CAS: 105-60-2

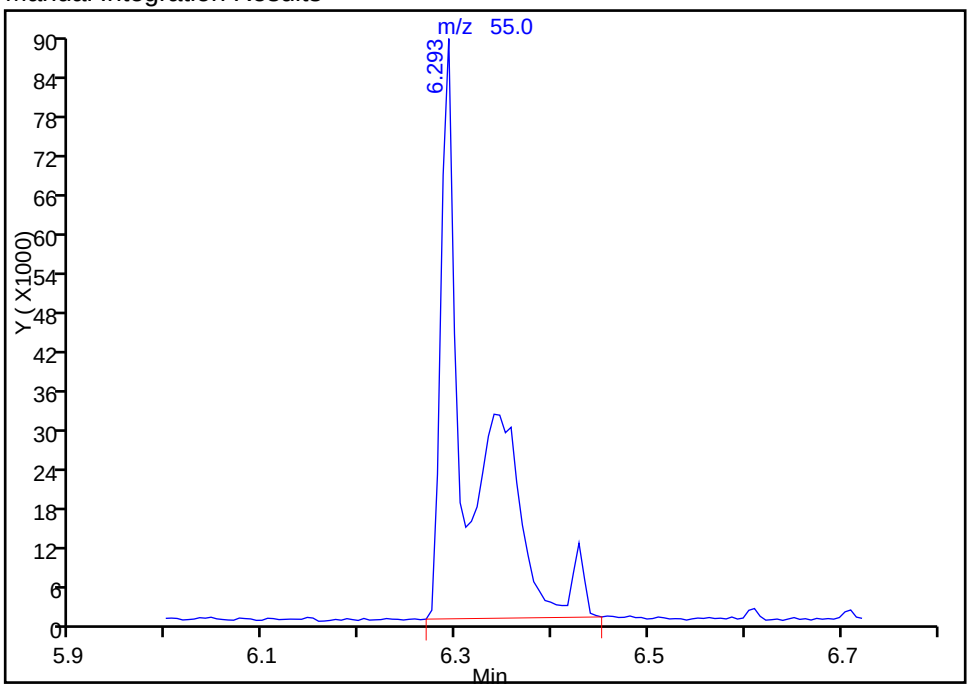
Processing Integration Results

RT: 6.29
Area: 89985
Amount: 80.000000
Amount Units: ug/ml



Manual Integration Results

RT: 6.29
Area: 192348
Amount: 85.535459
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:31:21
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20498.D
Lims ID: STD004 HSL
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Oct-2015 11:49:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD004 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:32:55 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:42:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	97	118299	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	445431	40.0	40.0	
* 3 Acenaphthene-d10	164	7.657	7.657	0.000	92	253081	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	437118	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	97	391979	40.0	40.0	
* 6 Perylene-d12	264	17.180	17.198	-0.018	95	354128	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	92	17988	4.00	4.21	
$ 8 Phenol-d5	99	4.310	4.310	0.000	98	22080	4.00	4.12	
$ 9 Nitrobenzene-d5	82	5.204	5.198	0.006	89	19797	4.00	4.26	
$ 10 2-Fluorobiphenyl	172	6.969	6.963	0.006	100	38444	4.00	4.44	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	83	3592	4.00	3.86	
$ 12 Terphenyl-d14	244	11.116	11.122	-0.006	98	35842	4.00	4.22	
13 1,4-Dioxane	88	2.246	2.240	0.006	96	7735	4.00	4.35	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	92	11358	4.00	4.19	
15 Pyridine	79	2.505	2.499	0.005	93	20054	4.00	4.17	
23 Phenol	94	4.322	4.322	0.000	98	23523	4.00	4.34	
24 Aniline	93	4.375	4.375	0.000	97	27424	4.00	4.03	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	96	18922	4.00	4.39	
26 2-Chlorophenol	128	4.498	4.493	0.005	97	18752	4.00	4.21	
27 1,3-Dichlorobenzene	146	4.646	4.640	0.006	98	20432	4.00	4.47	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	93	20000	4.00	4.34	
29 Benzyl alcohol	108	4.793	4.793	0.000	92	12096	4.00	4.19	
30 1,2-Dichlorobenzene	146	4.857	4.851	0.006	96	19532	4.00	4.43	
31 2-Methylphenol	108	4.887	4.887	0.000	94	16913	4.00	4.18	
32 2,2'-oxybis[1-chloropropan	45	4.934	4.922	0.012	76	26521	4.00	4.37	
38 3 & 4 Methylphenol	108	5.028	5.028	0.000	96	18004	4.00	4.21	
39 3-Methylphenol	108	5.028	5.028	0.000	96	18004	4.00	4.21	
40 4-Methylphenol	108	5.028	5.028	0.000	95	18004	4.00	4.21	
41 N-Nitrosodi-n-propylamine	70	5.051	5.046	0.005	91	13722	4.00	4.51	
42 Acetophenone	105	5.051	5.051	0.000	97	24612	4.00	4.25	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.181	5.175	0.006	93	8274	4.00	4.24	
44 Nitrobenzene	77	5.222	5.216	0.006	90	18182	4.00	4.15	
46 Isophorone	82	5.451	5.446	0.005	99	36370	4.00	4.32	
48 2-Nitrophenol	139	5.528	5.528	0.000	94	9097	4.00	3.98	
49 2,4-Dimethylphenol	107	5.545	5.546	-0.001	93	18205	4.00	4.31	
50 Bis(2-chloroethoxy)methane	93	5.640	5.634	0.006	96	21401	4.00	4.21	
52 Benzoic acid	105	5.581	5.646	-0.065	90	11340	8.00	8.57	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	94	14098	4.00	4.13	
54 1,2,4-Trichlorobenzene	180	5.851	5.845	0.006	93	15884	4.00	4.44	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	96	13990	4.00	4.15	
57 Naphthalene	128	5.928	5.928	0.000	97	52925	4.00	4.34	
58 4-Chloroaniline	127	5.969	5.963	0.006	96	23771	4.00	4.10	
59 Hexachlorobutadiene	225	6.063	6.057	0.006	96	8315	4.00	4.44	
62 Caprolactam	55	6.287	6.293	-0.006	78	8343	4.00	3.72	
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	15281	4.00	4.23	
65 2-Methylnaphthalene	142	6.616	6.610	0.006	93	36732	4.00	4.46	
67 1-Methylnaphthalene	142	6.716	6.710	0.006	94	31483	4.00	4.36	
68 Hexachlorocyclopentadiene	237	6.787	6.781	0.006	95	8450	4.00	3.92	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	0.000	97	14932	4.00	4.57	
70 2,4,6-Trichlorophenol	196	6.892	6.887	0.005	79	9398	4.00	4.15	
72 2,4,5-Trichlorophenol	196	6.928	6.922	0.006	91	10095	4.00	4.09	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	42005	4.00	4.34	
75 2-Chloronaphthalene	162	7.098	7.092	0.006	96	33226	4.00	4.52	
77 2-Nitroaniline	65	7.181	7.187	-0.006	84	10977	4.00	4.20	
79 Dimethyl phthalate	163	7.363	7.363	0.000	99	43390	4.00	4.98	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	81	5441	4.00	3.54	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	94	8355	4.00	4.14	
82 Acenaphthylene	152	7.516	7.516	0.000	98	53515	4.00	4.25	
83 3-Nitroaniline	138	7.592	7.592	0.000	93	10223	4.00	3.91	
84 Acenaphthene	153	7.687	7.687	0.000	95	33204	4.00	4.38	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	82	7610	8.00	5.71	
87 4-Nitrophenol	109	7.734	7.745	-0.011	93	10621	8.00	8.21	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	92	10928	4.00	4.04	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	49148	4.00	4.47	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	78	7477	4.00	3.82	
94 Diethyl phthalate	149	8.063	8.063	0.000	97	40271	4.00	4.58	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	94	18072	4.00	4.60	
98 Fluorene	166	8.204	8.204	0.000	97	40877	4.00	4.63	
99 4-Nitroaniline	138	8.198	8.210	-0.012	87	10471	4.00	4.00	
100 4,6-Dinitro-2-methylphenol	198	8.245	8.245	0.000	77	9972	8.00	6.32	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	61	59276	8.00	9.08	
103 Azobenzene	77	8.345	8.351	-0.006	100	40374	4.00	4.34	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	100	40374	4.04	4.39	
111 4-Bromophenyl phenyl ether	248	8.681	8.686	-0.005	72	8606	4.00	4.02	
112 Hexachlorobenzene	284	8.775	8.781	-0.006	90	9207	4.00	4.22	
116 Pentachlorophenol	266	8.963	8.963	0.000	87	9065	8.00	6.88	
119 Phenanthrene	178	9.175	9.181	-0.006	98	57101	4.00	4.44	
120 Anthracene	178	9.228	9.228	0.000	97	56175	4.00	4.33	
122 Carbazole	167	9.375	9.381	-0.006	96	54878	4.00	4.18	
123 Di-n-butyl phthalate	149	9.722	9.722	0.000	100	66270	4.00	4.23	
128 Fluoranthene	202	10.557	10.563	-0.006	98	59962	4.00	4.30	
131 Pyrene	202	10.892	10.898	-0.006	97	61295	4.00	4.25	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.880	11.892	-0.012	93	18369	4.00	3.98	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	96	28945	4.00	4.06	
140 3,3'-Dichlorobenzidine	252	13.169	13.180	-0.011	76	15408	4.00	4.14	
141 Benzo[a]anthracene	228	13.216	13.233	-0.017	99	52063	4.00	4.14	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	36227	4.00	3.86	
143 Chrysene	228	13.298	13.316	-0.018	98	51977	4.00	4.24	
144 Di-n-octyl phthalate	149	15.174	15.186	-0.012	99	57892	4.00	3.61	
146 Benzo[b]fluoranthene	252	16.080	16.104	-0.024	99	44918	4.00	4.05	
147 Benzo[k]fluoranthene	252	16.151	16.186	-0.035	98	44810	4.00	3.90	
148 Benzo[a]pyrene	252	17.004	17.033	-0.029	79	42820	4.00	3.87	
151 Indeno[1,2,3-cd]pyrene	276	20.292	20.321	-0.029	96	35204	4.00	3.93	
152 Dibenz(a,h)anthracene	278	20.374	20.409	-0.035	96	28518	4.00	3.31	
153 Benzo[g,h,i]perylene	276	21.021	21.056	-0.035	94	38289	4.00	3.87	

Reagents:

MS-HSLA004_00020 Amount Added: 200.00 Units: uL

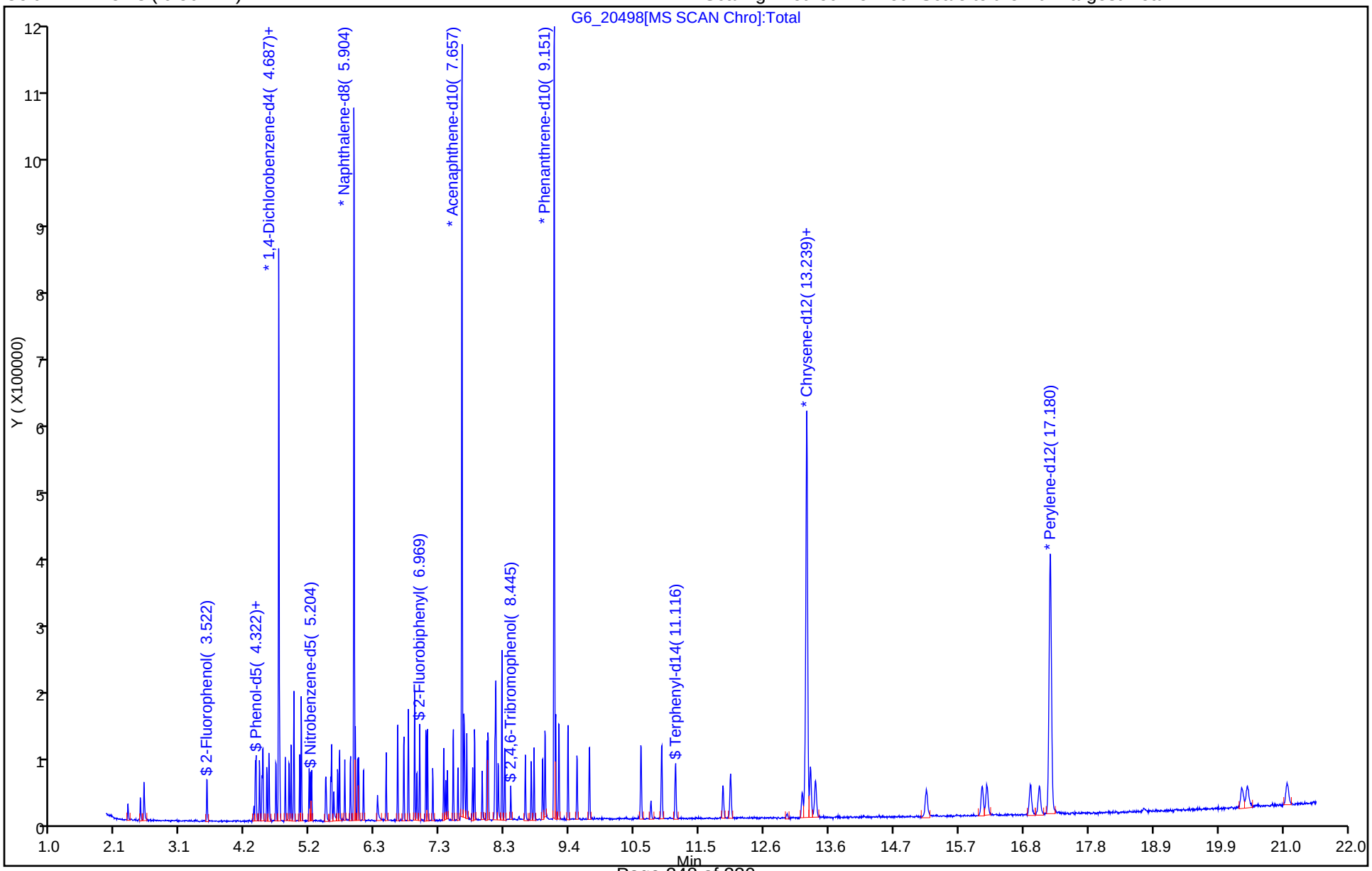
Report Date: 23-Oct-2015 07:32:57 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20498.D

Injection Date:	13-Oct-2015 11:49:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD004 HSL			Worklist Smp#:	4
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20499.D
Lims ID: STD010 HSL
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Oct-2015 12:15:30 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD010 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:00 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:43:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	122397	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	99	458952	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	259831	40.0	40.0	
* 4 Phenanthrene-d10	188	9.145	9.151	-0.006	97	448093	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	97	405398	40.0	40.0	
* 6 Perylene-d12	264	17.186	17.198	-0.012	96	360405	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	91	43676	10.0	9.88	
$ 8 Phenol-d5	99	4.310	4.310	0.000	99	55275	10.0	9.96	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	90	47318	10.0	9.89	
$ 10 2-Fluorobiphenyl	172	6.969	6.963	0.006	100	93060	10.0	10.5	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	85	9603	10.0	10.0	
$ 12 Terphenyl-d14	244	11.116	11.122	-0.006	98	88122	10.0	10.0	
13 1,4-Dioxane	88	2.246	2.240	0.006	99	18118	10.0	9.85	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	92	27379	10.0	9.75	
15 Pyridine	79	2.504	2.499	0.005	91	48703	10.0	9.79	
23 Phenol	94	4.322	4.322	0.000	99	54921	10.0	9.80	
24 Aniline	93	4.375	4.375	0.000	98	69407	10.0	9.86	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	45493	10.0	10.2	
26 2-Chlorophenol	128	4.498	4.493	0.005	97	45613	10.0	9.90	
27 1,3-Dichlorobenzene	146	4.645	4.640	0.005	97	47247	10.0	9.98	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	96	47366	10.0	9.93	
29 Benzyl alcohol	108	4.793	4.793	-0.001	93	29366	10.0	9.82	
30 1,2-Dichlorobenzene	146	4.857	4.851	0.006	96	44798	10.0	9.82	
31 2-Methylphenol	108	4.887	4.887	0.000	95	41698	10.0	9.97	
32 2,2'-oxybis[1-chloropropan	45	4.928	4.922	0.006	94	64637	10.0	10.3	
38 3 & 4 Methylphenol	108	5.028	5.028	0.000	96	43046	10.0	9.73	
39 3-Methylphenol	108	5.028	5.028	0.000	96	43046	10.0	9.73	
40 4-Methylphenol	108	5.028	5.028	0.000	92	43046	10.0	9.73	
41 N-Nitrosodi-n-propylamine	70	5.051	5.046	0.005	94	31700	10.0	10.1	
42 Acetophenone	105	5.051	5.051	0.000	98	61074	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.181	5.175	0.006	96	19897	10.0	9.86	
44 Nitrobenzene	77	5.222	5.216	0.006	90	44956	10.0	9.95	
46 Isophorone	82	5.445	5.446	-0.001	99	86097	10.0	9.93	
48 2-Nitrophenol	139	5.528	5.528	0.000	95	23413	10.0	9.95	
49 2,4-Dimethylphenol	107	5.545	5.546	-0.001	93	44987	10.0	10.3	
50 Bis(2-chloroethoxy)methane	93	5.640	5.634	0.006	98	53696	10.0	10.3	
52 Benzoic acid	105	5.592	5.646	-0.054	88	41528	20.0	17.4	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	94	35701	10.0	10.1	
54 1,2,4-Trichlorobenzene	180	5.851	5.845	0.006	93	38562	10.0	10.5	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	97	34021	10.0	9.80	
57 Naphthalene	128	5.928	5.928	0.000	97	126530	10.0	10.1	
58 4-Chloroaniline	127	5.963	5.963	0.000	96	61292	10.0	10.3	
59 Hexachlorobutadiene	225	6.057	6.057	0.000	96	19817	10.0	10.3	
62 Caprolactam	55	6.287	6.293	-0.006	78	22435	10.0	9.70	
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	36874	10.0	9.90	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	94	88400	10.0	10.4	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	92	76242	10.0	10.2	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	95	22020	10.0	9.94	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	-0.001	98	35328	10.0	10.5	
70 2,4,6-Trichlorophenol	196	6.886	6.887	-0.001	75	24058	10.0	10.4	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	95	25775	10.0	10.2	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	96	103564	10.0	10.4	
75 2-Chloronaphthalene	162	7.098	7.092	0.006	97	76748	10.0	10.2	
77 2-Nitroaniline	65	7.181	7.187	-0.006	84	26284	10.0	9.79	
79 Dimethyl phthalate	163	7.357	7.363	-0.006	98	94243	10.0	10.5	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	86	14533	10.0	9.20	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	96	21609	10.0	10.4	
82 Acenaphthylene	152	7.516	7.516	0.000	98	133039	10.0	10.3	
83 3-Nitroaniline	138	7.586	7.592	-0.006	94	26206	10.0	9.77	
84 Acenaphthene	153	7.686	7.687	-0.001	94	80494	10.0	10.3	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	84	22960	20.0	16.8	
87 4-Nitrophenol	109	7.733	7.745	-0.012	93	25657	20.0	19.3	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	92	27612	10.0	9.95	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	117292	10.0	10.4	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	76	19172	10.0	9.54	
94 Diethyl phthalate	149	8.057	8.063	-0.006	98	93890	10.0	10.4	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	95	43197	10.0	10.7	
98 Fluorene	166	8.204	8.204	0.000	96	95907	10.0	10.6	
99 4-Nitroaniline	138	8.198	8.210	-0.012	86	26515	10.0	9.86	
100 4,6-Dinitro-2-methylphenol	198	8.239	8.245	-0.006	81	27695	20.0	17.1	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	62	139189	20.0	20.8	
103 Azobenzene	77	8.345	8.351	-0.006	99	98170	10.0	10.3	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	99	98170	10.1	10.4	
111 4-Bromophenyl phenyl ether	248	8.680	8.686	-0.006	70	22682	10.0	10.3	
112 Hexachlorobenzene	284	8.775	8.781	-0.006	90	22355	10.0	10.0	
116 Pentachlorophenol	266	8.957	8.963	-0.006	89	23588	20.0	17.5	
119 Phenanthrene	178	9.175	9.181	-0.006	98	134833	10.0	10.2	
120 Anthracene	178	9.222	9.228	-0.006	98	134529	10.0	10.1	
122 Carbazole	167	9.375	9.381	-0.006	95	138062	10.0	10.3	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	160977	10.0	10.0	
128 Fluoranthene	202	10.551	10.563	-0.012	98	144967	10.0	10.1	
131 Pyrene	202	10.892	10.898	-0.006	97	146822	10.0	9.84	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.880	11.892	-0.012	95	45991	10.0	9.63	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	97	70270	10.0	9.52	
140 3,3'-Dichlorobenzidine	252	13.163	13.180	-0.017	76	36069	10.0	9.36	
141 Benzo[a]anthracene	228	13.215	13.233	-0.018	99	127879	10.0	9.84	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	90081	10.0	9.27	
143 Chrysene	228	13.298	13.316	-0.018	98	127544	10.0	10.1	
144 Di-n-octyl phthalate	149	15.174	15.186	-0.012	99	147453	10.0	8.88	
146 Benzo[b]fluoranthene	252	16.080	16.104	-0.024	98	106015	10.0	9.40	
147 Benzo[k]fluoranthene	252	16.156	16.186	-0.030	98	112854	10.0	9.66	
148 Benzo[a]pyrene	252	17.009	17.033	-0.024	80	106542	10.0	9.46	
151 Indeno[1,2,3-cd]pyrene	276	20.286	20.321	-0.035	97	82959	10.0	8.95	
152 Dibenz(a,h)anthracene	278	20.380	20.409	-0.029	95	81462	10.0	9.29	
153 Benzo[g,h,i]perylene	276	21.027	21.056	-0.029	94	97319	10.0	9.67	

Reagents:

MS-HSLA010_00020 Amount Added: 200.00 Units: uL

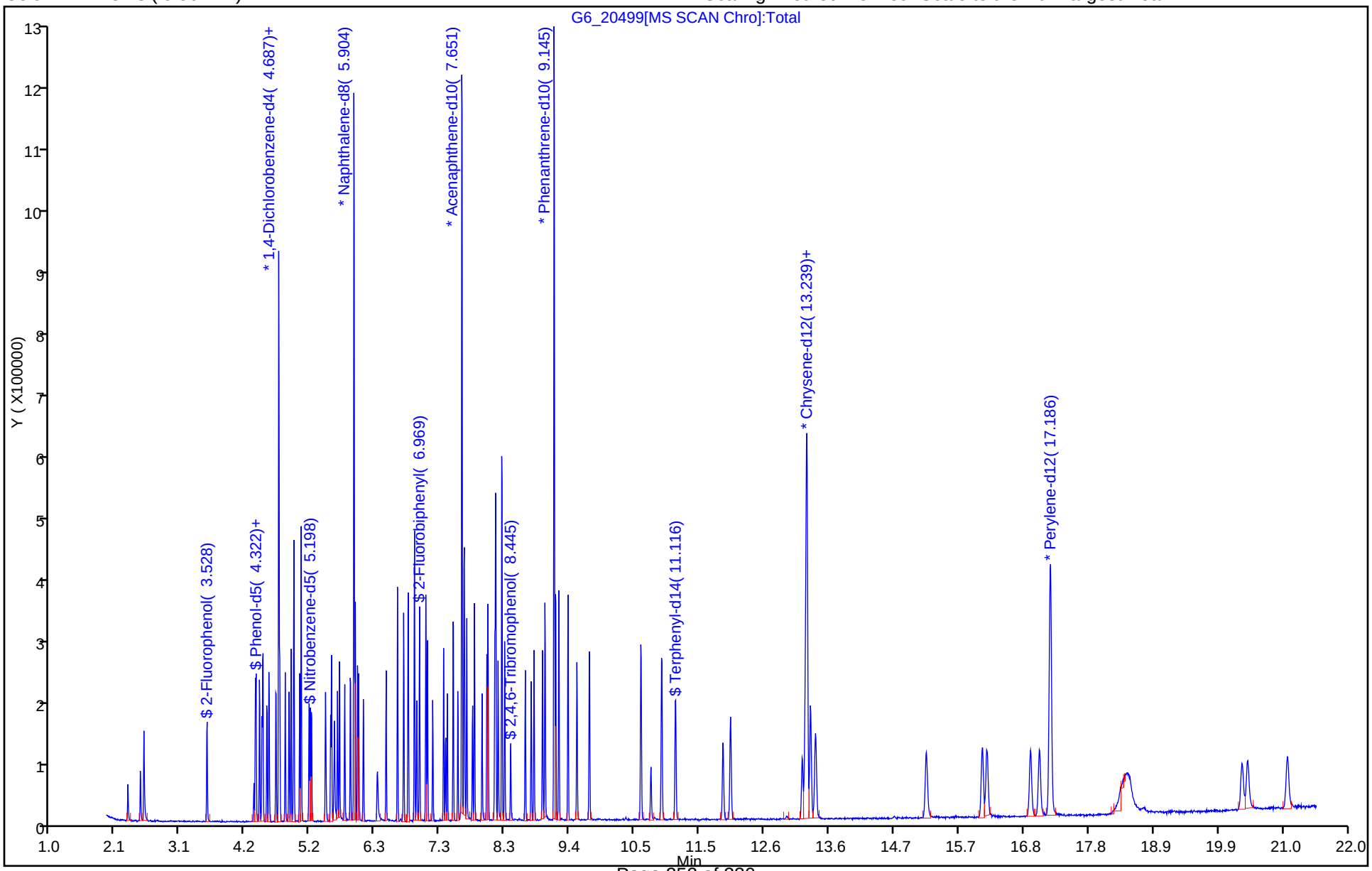
Report Date: 23-Oct-2015 07:33:01 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20499.D

Injection Date:	13-Oct-2015 12:15:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD010 HSL			Worklist Smp#:	5
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20500.D
Lims ID: STD020 HSL
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Oct-2015 12:41:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD020 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:06 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:45:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	97	117416	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	442107	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	251484	40.0	40.0	
* 4 Phenanthrene-d10	188	9.145	9.151	-0.006	97	423420	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	98	387234	40.0	40.0	
* 6 Perylene-d12	264	17.180	17.198	-0.018	97	346178	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	92	83825	20.0	19.8	
$ 8 Phenol-d5	99	4.310	4.310	0.000	99	104611	20.0	19.7	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	91	88786	20.0	19.3	
$ 10 2-Fluorobiphenyl	172	6.969	6.963	0.006	99	174919	20.0	20.3	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	88	18001	20.0	19.5	
$ 12 Terphenyl-d14	244	11.110	11.122	-0.012	98	166436	20.0	19.9	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	35978	20.0	20.4	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	91	51713	20.0	19.2	
15 Pyridine	79	2.504	2.499	0.005	93	94194	20.0	19.7	
23 Phenol	94	4.322	4.322	0.000	99	104950	20.0	19.5	
24 Aniline	93	4.375	4.375	0.000	98	132823	20.0	19.7	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	85090	20.0	19.9	
26 2-Chlorophenol	128	4.493	4.493	0.000	97	87253	20.0	19.7	
27 1,3-Dichlorobenzene	146	4.645	4.640	0.005	98	90524	20.0	19.9	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	95	91259	20.0	20.0	
29 Benzyl alcohol	108	4.793	4.793	0.000	93	56765	20.0	19.8	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	97	87721	20.0	20.0	
31 2-Methylphenol	108	4.887	4.887	0.000	95	79028	20.0	19.7	
32 2,2'-oxybis[1-chloropropan	45	4.928	4.922	0.006	94	123316	20.0	20.5	
38 3 & 4 Methylphenol	108	5.028	5.028	0.000	96	84167	20.0	19.8	
39 3-Methylphenol	108	5.028	5.028	0.000	96	84167	20.0	19.8	
40 4-Methylphenol	108	5.028	5.028	0.000	94	84167	20.0	19.8	
41 N-Nitrosodi-n-propylamine	70	5.045	5.046	-0.001	93	59964	20.0	19.9	
42 Acetophenone	105	5.051	5.051	0.000	97	116218	20.0	20.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.181	5.175	0.006	95	39263	20.0	20.3	
44 Nitrobenzene	77	5.216	5.216	0.000	91	86904	20.0	20.0	
46 Isophorone	82	5.445	5.446	-0.001	99	163258	20.0	19.5	
48 2-Nitrophenol	139	5.528	5.528	0.000	95	43560	20.0	19.2	
49 2,4-Dimethylphenol	107	5.540	5.546	-0.006	96	83399	20.0	19.9	
50 Bis(2-chloroethoxy)methane	93	5.640	5.634	0.006	99	101158	20.0	20.0	
52 Benzoic acid	105	5.604	5.646	-0.042	91	100786	40.0	36.0	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	67686	20.0	20.0	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	95	71413	20.0	20.1	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	96	65799	20.0	19.7	
57 Naphthalene	128	5.928	5.928	0.000	97	243742	20.0	20.2	
58 4-Chloroaniline	127	5.963	5.963	0.000	97	115281	20.0	20.1	
59 Hexachlorobutadiene	225	6.057	6.057	0.000	98	36675	20.0	19.7	
62 Caprolactam	55	6.281	6.293	-0.012	77	41264	20.0	18.5	
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	96	71594	20.0	20.0	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	166231	20.0	20.3	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	144746	20.0	20.2	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	96	42780	20.0	20.0	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	0.000	98	67401	20.0	20.8	
70 2,4,6-Trichlorophenol	196	6.887	6.887	0.000	78	45660	20.0	20.3	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	92	47236	20.0	19.3	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	194607	20.0	20.2	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	97	146287	20.0	20.0	
77 2-Nitroaniline	65	7.181	7.187	-0.006	86	50610	20.0	19.5	
79 Dimethyl phthalate	163	7.357	7.363	-0.006	98	170321	20.0	19.7	
80 1,3-Dinitrobenzene	168	7.386	7.392	-0.006	86	30071	20.0	19.7	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	95	38618	20.0	19.2	
82 Acenaphthylene	152	7.510	7.516	-0.006	98	252586	20.0	20.2	
83 3-Nitroaniline	138	7.586	7.592	-0.006	95	50857	20.0	19.6	
84 Acenaphthene	153	7.686	7.687	-0.001	94	153345	20.0	20.4	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	88	46682	40.0	35.2	
87 4-Nitrophenol	109	7.734	7.745	-0.011	95	49794	40.0	38.7	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	92	52701	20.0	19.6	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	217906	20.0	19.9	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	75	38187	20.0	19.6	
94 Diethyl phthalate	149	8.057	8.063	-0.006	98	178863	20.0	20.5	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	94	76514	20.0	19.6	
98 Fluorene	166	8.204	8.204	0.000	98	175497	20.0	20.0	
99 4-Nitroaniline	138	8.198	8.210	-0.012	90	51567	20.0	19.8	
100 4,6-Dinitro-2-methylphenol	198	8.239	8.245	-0.006	80	59367	40.0	38.8	
102 N-Nitrosodiphenylamine	169	8.298	8.304	-0.006	63	262796	40.0	41.5	
103 Azobenzene	77	8.345	8.351	-0.006	100	182254	20.0	19.7	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	100	182254	20.2	19.9	
111 4-Bromophenyl phenyl ether	248	8.681	8.686	-0.005	70	43705	20.0	21.1	
112 Hexachlorobenzene	284	8.775	8.781	-0.006	91	42497	20.0	20.1	
116 Pentachlorophenol	266	8.957	8.963	-0.006	88	49802	40.0	39.0	
119 Phenanthrene	178	9.169	9.181	-0.012	98	255983	20.0	20.5	
120 Anthracene	178	9.222	9.228	-0.006	98	253044	20.0	20.2	
122 Carbazole	167	9.375	9.381	-0.006	95	260870	20.0	20.5	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	303519	20.0	20.0	
128 Fluoranthene	202	10.551	10.563	-0.012	98	273117	20.0	20.2	
131 Pyrene	202	10.886	10.898	-0.012	97	285234	20.0	20.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.880	11.892	-0.012	97	92404	20.0	20.3	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	98	134872	20.0	19.1	
140 3,3'-Dichlorobenzidine	252	13.163	13.180	-0.017	76	68065	20.0	18.5	
141 Benzo[a]anthracene	228	13.210	13.233	-0.023	99	244398	20.0	19.7	
142 Bis(2-ethylhexyl) phthalat	149	13.374	13.392	-0.018	97	175443	20.0	18.9	
143 Chrysene	228	13.298	13.316	-0.018	98	238191	20.0	19.7	
144 Di-n-octyl phthalate	149	15.174	15.186	-0.012	99	293356	20.0	18.5	
146 Benzo[b]fluoranthene	252	16.080	16.104	-0.024	99	208255	20.0	19.2	
147 Benzo[k]fluoranthene	252	16.157	16.186	-0.029	98	225793	20.0	20.1	
148 Benzo[a]pyrene	252	17.004	17.033	-0.029	79	206188	20.0	19.1	
151 Indeno[1,2,3-cd]pyrene	276	20.286	20.321	-0.035	96	169205	20.0	19.1	
152 Dibenz(a,h)anthracene	278	20.380	20.409	-0.029	95	161456	20.0	19.2	
153 Benzo[g,h,i]perylene	276	21.027	21.056	-0.029	94	186124	20.0	19.3	

Reagents:

MS-HSLA020_00020 Amount Added: 200.00 Units: uL

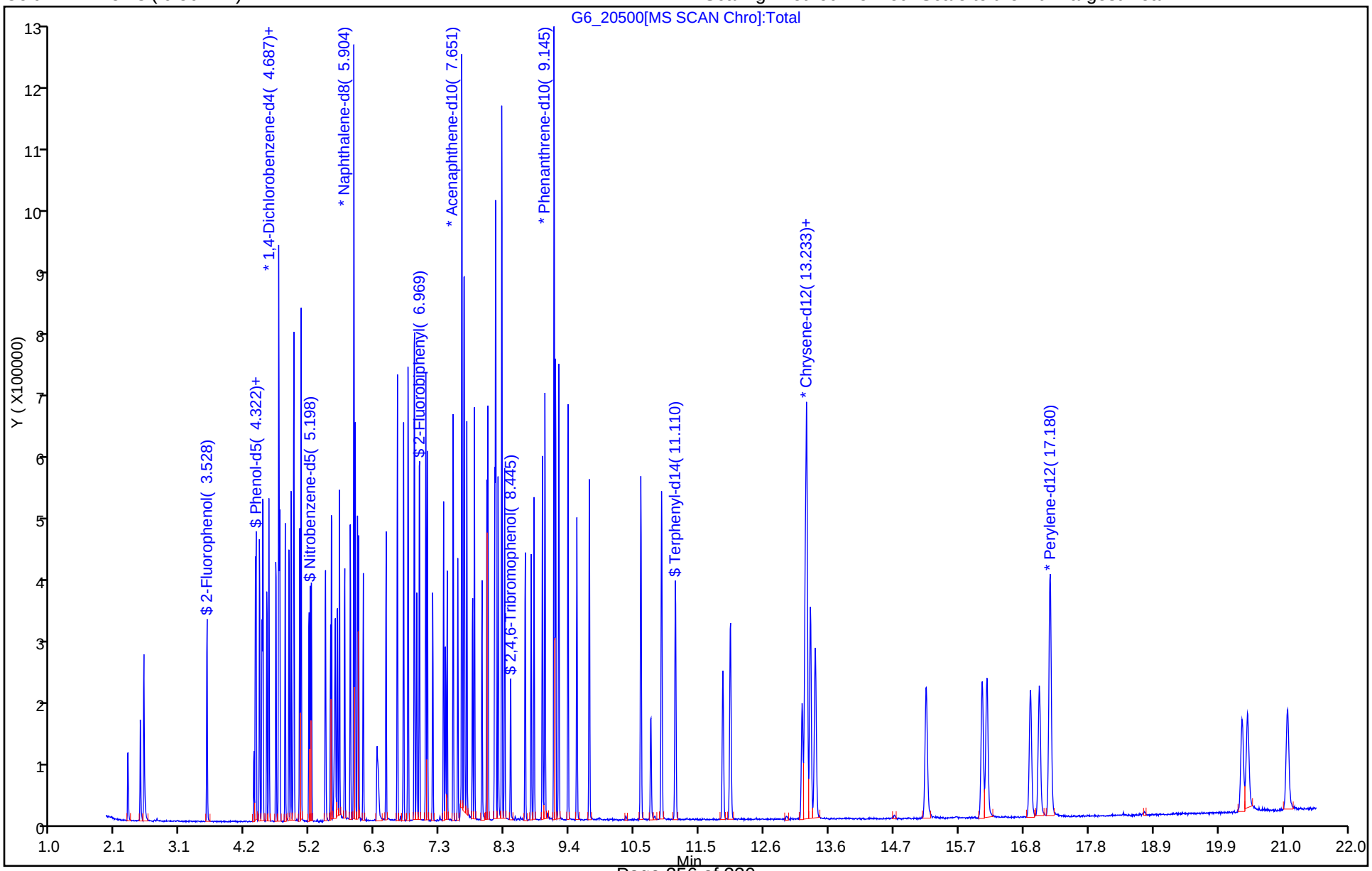
Report Date: 23-Oct-2015 07:33:07 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20500.D

Injection Date:	13-Oct-2015 12:41:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD020 HSL			Worklist Smp#:	6
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20501.D
Lims ID: STD050 HSL
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Oct-2015 13:06:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD050 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:15 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:46:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	121662	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	462238	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	258704	40.0	40.0	
* 4 Phenanthrene-d10	188	9.145	9.151	-0.006	98	438571	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	97	396660	40.0	40.0	
* 6 Perylene-d12	264	17.180	17.198	-0.018	96	352572	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	92	222616	50.0	50.7	
$ 8 Phenol-d5	99	4.310	4.310	0.000	99	278968	50.0	50.6	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	90	244593	50.0	50.8	
$ 10 2-Fluorobiphenyl	172	6.963	6.963	0.000	99	448154	50.0	50.7	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	92	49334	50.0	51.9	
$ 12 Terphenyl-d14	244	11.110	11.122	-0.012	98	436172	50.0	50.8	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	90788	50.0	49.7	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	92	139128	50.0	49.9	
15 Pyridine	79	2.504	2.499	0.005	92	250810	50.0	50.7	
23 Phenol	94	4.322	4.322	0.000	99	281308	50.0	50.5	
24 Aniline	93	4.375	4.375	0.000	98	355861	50.0	50.9	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	222248	50.0	50.1	
26 2-Chlorophenol	128	4.493	4.493	0.000	97	230877	50.0	50.4	
27 1,3-Dichlorobenzene	146	4.640	4.640	0.000	98	236717	50.0	50.3	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	94	242081	50.0	51.1	
29 Benzyl alcohol	108	4.793	4.793	0.000	94	149491	50.0	50.3	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	96	229450	50.0	50.6	
31 2-Methylphenol	108	4.887	4.887	0.000	95	208615	50.0	50.2	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	95	316082	50.0	50.7	
38 3 & 4 Methylphenol	108	5.028	5.028	0.000	98	223929	50.0	50.9	
39 3-Methylphenol	108	5.028	5.028	0.000	98	223929	50.0	50.9	
40 4-Methylphenol	108	5.028	5.028	0.000	96	223929	50.0	50.9	
41 N-Nitrosodi-n-propylamine	70	5.046	5.046	0.000	92	158518	50.0	50.7	
42 Acetophenone	105	5.051	5.051	0.000	97	308418	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.175	5.175	0.000	96	102333	50.0	51.0	
44 Nitrobenzene	77	5.216	5.216	0.000	90	228793	50.0	50.3	
46 Isophorone	82	5.440	5.446	-0.006	99	436302	50.0	50.0	
48 2-Nitrophenol	139	5.528	5.528	0.000	95	118135	50.0	49.8	
49 2,4-Dimethylphenol	107	5.540	5.546	-0.006	95	216751	50.0	49.5	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	264810	50.0	50.2	
52 Benzoic acid	105	5.628	5.646	-0.018	90	305508	100.0	94.8	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	179139	50.0	50.6	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	94	186814	50.0	50.3	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	97	179395	50.0	51.3	
57 Naphthalene	128	5.928	5.928	0.000	97	644933	50.0	51.0	
58 4-Chloroaniline	127	5.963	5.963	0.000	96	306238	50.0	51.0	
59 Hexachlorobutadiene	225	6.051	6.057	-0.006	98	98338	50.0	50.6	
62 Caprolactam	55	6.281	6.293	-0.012	78	115684	50.0	49.6	M
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	190673	50.0	50.8	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	431242	50.0	50.4	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	379169	50.0	50.6	
68 Hexachlorocyclopentadiene	237	6.775	6.781	-0.006	96	114044	50.0	51.7	
69 1,2,4,5-Tetrachlorobenzene	216	6.781	6.787	-0.006	97	170964	50.0	50.4	
70 2,4,6-Trichlorophenol	196	6.881	6.887	-0.006	78	121348	50.0	52.5	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	95	129589	50.0	51.4	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	510159	50.0	51.5	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	97	385158	50.0	51.3	
77 2-Nitroaniline	65	7.181	7.187	-0.006	85	136302	50.0	51.0	
79 Dimethyl phthalate	163	7.357	7.363	-0.006	98	435607	50.0	48.9	
80 1,3-Dinitrobenzene	168	7.387	7.392	-0.005	86	81455	50.0	51.8	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	95	106888	50.0	51.8	
82 Acenaphthylene	152	7.510	7.516	-0.006	98	657419	50.0	51.1	
83 3-Nitroaniline	138	7.587	7.592	-0.006	96	138309	50.0	51.8	
84 Acenaphthene	153	7.687	7.687	-0.001	92	396466	50.0	51.2	
86 2,4-Dinitrophenol	184	7.692	7.698	-0.006	81	143749	100.0	105.5	
87 4-Nitrophenol	109	7.739	7.745	-0.006	93	137047	100.0	103.7	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	93	144564	50.0	52.3	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	571578	50.0	50.8	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	76	105183	50.0	52.6	
94 Diethyl phthalate	149	8.057	8.063	-0.006	98	461293	50.0	51.3	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	93	202421	50.0	50.4	
98 Fluorene	166	8.198	8.204	-0.006	95	454237	50.0	50.3	
99 4-Nitroaniline	138	8.204	8.210	-0.006	86	137376	50.0	51.3	
100 4,6-Dinitro-2-methylphenol	198	8.239	8.245	-0.006	80	162759	100.0	102.8	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	62	675299	100.0	103.1	
103 Azobenzene	77	8.345	8.351	-0.006	99	484706	50.0	50.9	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	99	484706	50.5	51.5	
111 4-Bromophenyl phenyl ether	248	8.681	8.686	-0.005	71	108153	50.0	50.4	
112 Hexachlorobenzene	284	8.775	8.781	-0.006	92	113974	50.0	52.1	
116 Pentachlorophenol	266	8.957	8.963	-0.006	89	140766	100.0	106.4	
119 Phenanthrene	178	9.169	9.181	-0.012	98	656219	50.0	50.9	
120 Anthracene	178	9.222	9.228	-0.006	98	663527	50.0	51.0	
122 Carbazole	167	9.375	9.381	-0.006	96	670736	50.0	50.9	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	808652	50.0	51.4	
128 Fluoranthene	202	10.551	10.563	-0.012	98	706602	50.0	50.4	
131 Pyrene	202	10.886	10.898	-0.012	97	742846	50.0	50.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.880	11.892	-0.012	97	244769	50.0	52.4	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	98	361442	50.0	50.0	
140 3,3'-Dichlorobenzidine	252	13.169	13.180	-0.012	75	186183	50.0	49.4	
141 Benzo[a]anthracene	228	13.216	13.233	-0.017	99	638267	50.0	50.2	
142 Bis(2-ethylhexyl) phthalat	149	13.374	13.392	-0.018	97	478837	50.0	50.4	
143 Chrysene	228	13.304	13.316	-0.012	98	623444	50.0	50.2	
144 Di-n-octyl phthalate	149	15.174	15.186	-0.012	99	821972	50.0	50.6	
146 Benzo[b]fluoranthene	252	16.086	16.104	-0.018	99	564295	50.0	51.1	
147 Benzo[k]fluoranthene	252	16.162	16.186	-0.024	98	573904	50.0	50.2	
148 Benzo[a]pyrene	252	17.015	17.033	-0.018	80	562900	50.0	51.1	
151 Indeno[1,2,3-cd]pyrene	276	20.297	20.321	-0.024	96	461943	50.0	51.0	
152 Dibenz(a,h)anthracene	278	20.386	20.409	-0.023	95	438356	50.0	51.1	
153 Benzo[g,h,i]perylene	276	21.033	21.056	-0.023	94	502657	50.0	51.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA050_00021 Amount Added: 200.00 Units: uL

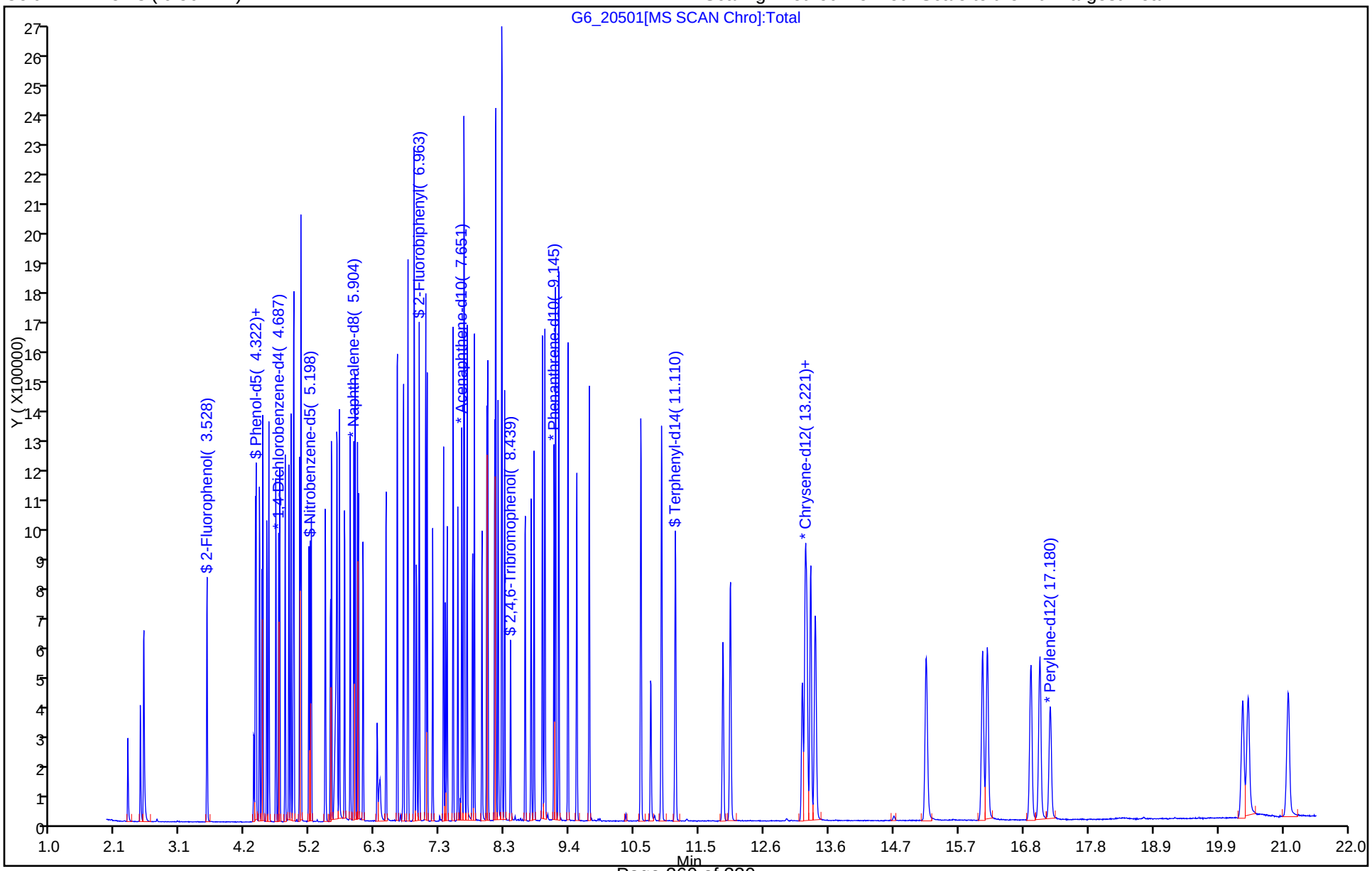
Report Date: 23-Oct-2015 07:33:17 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20501.D

Injection Date:	13-Oct-2015 13:06:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD050 HSL			Worklist Smp#:	7
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

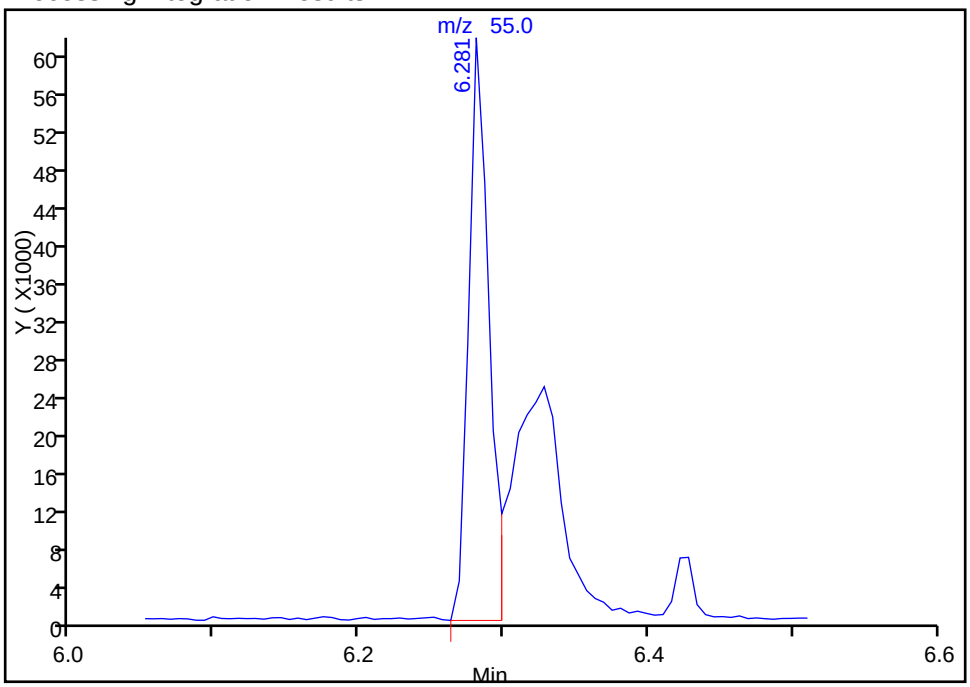
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20501.D
Injection Date: 13-Oct-2015 13:06:30 Instrument ID: SMS_G6
Lims ID: STD050 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

62 Caprolactam, CAS: 105-60-2

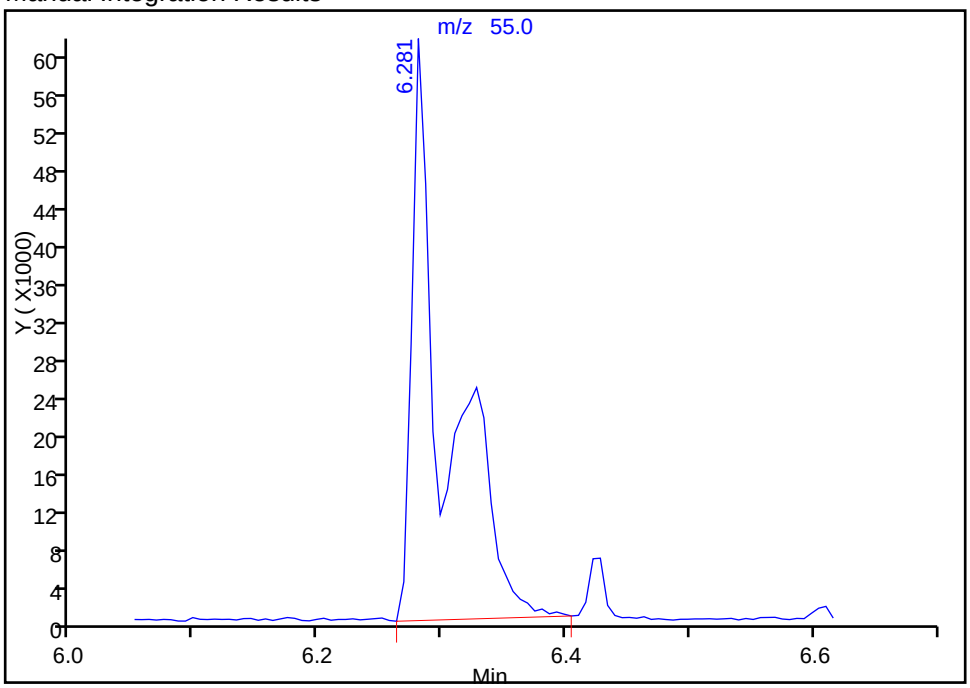
Processing Integration Results

RT: 6.28
Area: 61012
Amount: 35.106944
Amount Units: ug/ml



Manual Integration Results

RT: 6.28
Area: 115684
Amount: 49.644610
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:46:35
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20502.D
Lims ID: STD120 HSL
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Oct-2015 13:32:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD120 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:23 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:47:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	120965	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	451174	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	258777	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	434256	40.0	40.0	
* 5 Chrysene-d12	240	13.245	13.257	-0.012	97	387510	40.0	40.0	
* 6 Perylene-d12	264	17.186	17.198	-0.012	96	346055	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	92	518529	120.0	118.7	
$ 8 Phenol-d5	99	4.316	4.310	0.006	99	647542	120.0	118.1	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	91	562167	120.0	119.5	
$ 10 2-Fluorobiphenyl	172	6.963	6.963	0.000	100	1026144	120.0	116.0	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	86	113742	120.0	119.5	
$ 12 Terphenyl-d14	244	11.116	11.122	-0.006	98	993883	120.0	118.5	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	211917	120.0	116.6	
14 N-Nitrosodimethylamine	74	2.451	2.446	0.005	92	329822	120.0	118.9	
15 Pyridine	79	2.504	2.499	0.005	91	580866	120.0	118.1	
23 Phenol	94	4.328	4.322	0.006	99	657991	120.0	118.8	
24 Aniline	93	4.381	4.375	0.006	98	828020	120.0	119.1	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	512404	120.0	116.2	
26 2-Chlorophenol	128	4.498	4.493	0.005	97	536179	120.0	117.7	
27 1,3-Dichlorobenzene	146	4.640	4.640	0.000	98	545718	120.0	116.6	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	94	544342	120.0	115.5	
29 Benzyl alcohol	108	4.793	4.793	-0.001	94	347577	120.0	117.6	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	96	524876	120.0	116.4	
31 2-Methylphenol	108	4.887	4.887	0.000	94	492037	120.0	119.0	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	97	712330	120.0	114.8	
38 3 & 4 Methylphenol	108	5.034	5.028	0.006	97	518160	120.0	118.5	
39 3-Methylphenol	108	5.034	5.028	0.006	97	518160	120.0	118.5	
40 4-Methylphenol	108	5.034	5.028	0.006	95	518160	120.0	118.5	
41 N-Nitrosodi-n-propylamine	70	5.045	5.046	-0.001	91	356573	120.0	114.6	
42 Acetophenone	105	5.051	5.051	0.000	98	685927	120.0	115.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.175	5.175	0.000	95	234236	120.0	117.4	
44 Nitrobenzene	77	5.216	5.216	0.000	90	537864	120.0	121.1	
46 Isophorone	82	5.445	5.446	-0.001	99	1024738	120.0	120.2	
48 2-Nitrophenol	139	5.528	5.528	0.000	94	281978	120.0	121.9	
49 2,4-Dimethylphenol	107	5.545	5.546	-0.001	94	510534	120.0	119.3	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	610299	120.0	118.5	
52 Benzoic acid	105	5.663	5.646	0.017	86	855134	240.0	262.3	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	415618	120.0	120.2	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	94	423616	120.0	116.9	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	98	412418	120.0	120.9	
57 Naphthalene	128	5.928	5.928	0.000	97	1458464	120.0	118.2	
58 4-Chloroaniline	127	5.963	5.963	0.000	97	699114	120.0	119.2	
59 Hexachlorobutadiene	225	6.051	6.057	-0.006	97	223977	120.0	118.2	
62 Caprolactam	55	6.298	6.293	0.005	78	286883	120.0	126.1	M
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	436875	120.0	119.3	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	971626	120.0	116.4	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	859556	120.0	117.4	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	96	263926	120.0	119.6	
69 1,2,4,5-Tetrachlorobenzene	216	6.781	6.787	-0.006	97	382386	120.0	115.5	
70 2,4,6-Trichlorophenol	196	6.881	6.887	-0.006	78	268777	120.0	116.2	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	95	304579	120.0	120.7	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	1149092	120.0	116.0	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	97	865433	120.0	115.2	
77 2-Nitroaniline	65	7.181	7.187	-0.006	85	320083	120.0	119.7	
79 Dimethyl phthalate	163	7.363	7.363	0.000	99	999937	120.0	112.3	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	85	196512	120.0	124.9	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	95	242351	120.0	117.3	
82 Acenaphthylene	152	7.516	7.516	0.000	98	1508290	120.0	117.2	
83 3-Nitroaniline	138	7.592	7.592	0.000	95	319062	120.0	119.5	
84 Acenaphthene	153	7.686	7.687	-0.001	95	900157	120.0	116.2	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	85	340533	240.0	249.7	
87 4-Nitrophenol	109	7.745	7.745	0.000	95	317083	240.0	239.8	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	92	327993	120.0	118.7	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	1304931	120.0	116.1	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	75	246356	120.0	123.1	
94 Diethyl phthalate	149	8.063	8.063	0.000	98	1038640	120.0	115.4	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	94	453793	120.0	112.9	
98 Fluorene	166	8.204	8.204	0.000	95	1033669	120.0	114.4	
99 4-Nitroaniline	138	8.216	8.210	0.006	86	315211	120.0	117.7	
100 4,6-Dinitro-2-methylphenol	198	8.245	8.245	0.000	80	394504	240.0	251.7	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	62	1483809	240.0	228.7	
103 Azobenzene	77	8.345	8.351	-0.006	99	1107774	120.0	116.4	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	100	1107774	121.3	117.7	
111 4-Bromophenyl phenyl ether	248	8.680	8.686	-0.006	71	246838	120.0	116.1	
112 Hexachlorobenzene	284	8.780	8.781	-0.001	94	254421	120.0	117.5	
116 Pentachlorophenol	266	8.963	8.963	0.000	90	329633	240.0	251.7	
119 Phenanthrene	178	9.175	9.181	-0.006	98	1463238	120.0	114.5	
120 Anthracene	178	9.228	9.228	0.000	98	1513969	120.0	117.6	
122 Carbazole	167	9.375	9.381	-0.006	95	1529223	120.0	117.2	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	1824671	120.0	117.2	
128 Fluoranthene	202	10.557	10.563	-0.006	98	1623164	120.0	117.0	
131 Pyrene	202	10.892	10.898	-0.006	97	1685475	120.0	118.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.886	11.892	-0.006	97	557407	120.0	122.1	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	97	861589	120.0	122.1	
140 3,3'-Dichlorobenzidine	252	13.174	13.180	-0.006	78	451086	120.0	122.5	
141 Benzo[a]anthracene	228	13.227	13.233	-0.006	99	1484804	120.0	119.6	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	1138905	120.0	122.7	
143 Chrysene	228	13.310	13.316	-0.006	98	1444589	120.0	119.1	
144 Di-n-octyl phthalate	149	15.180	15.186	-0.006	99	2022254	120.0	127.4	
146 Benzo[b]fluoranthene	252	16.098	16.104	-0.006	99	1295271	120.0	119.6	
147 Benzo[k]fluoranthene	252	16.180	16.186	-0.006	98	1385854	120.0	123.5	
148 Benzo[a]pyrene	252	17.033	17.033	0.000	80	1345585	120.0	124.5	
151 Indeno[1,2,3-cd]pyrene	276	20.321	20.321	0.000	96	1087459	120.0	122.8	
152 Dibenz(a,h)anthracene	278	20.403	20.409	-0.006	95	1068654	120.0	126.9	
153 Benzo[g,h,i]perylene	276	21.056	21.056	0.000	96	1188479	120.0	123.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA120_00020 Amount Added: 200.00 Units: uL

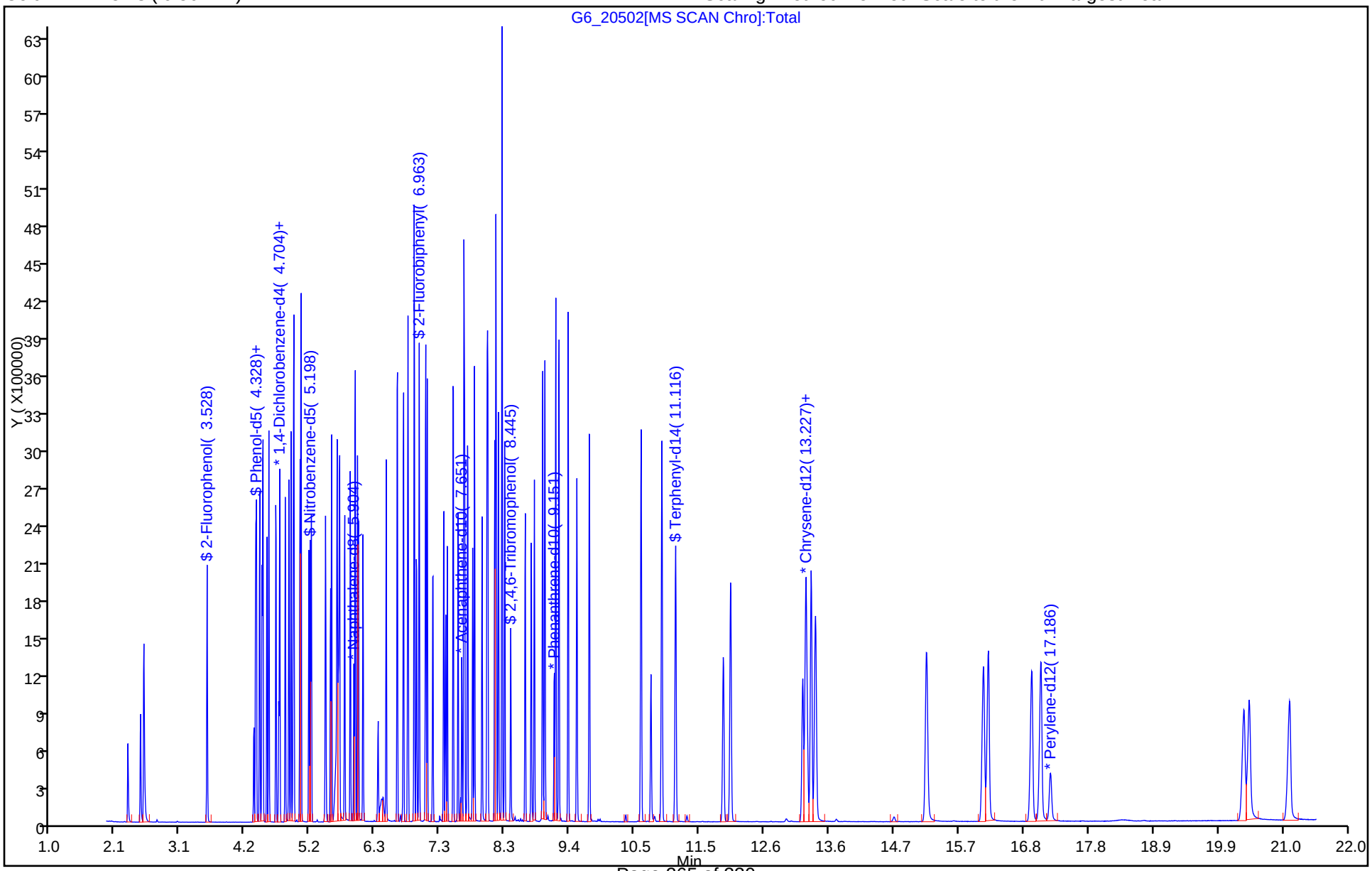
Report Date: 23-Oct-2015 07:33:24 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20502.D

Injection Date:	13-Oct-2015 13:32:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD120 HSL			Worklist Smp#:	8
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

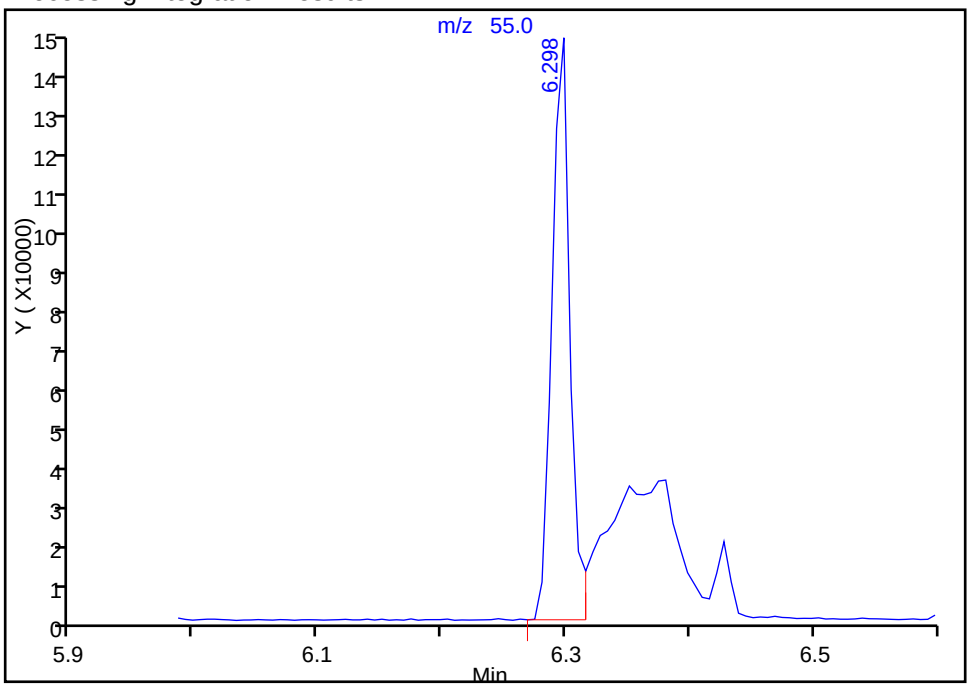
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20502.D
Injection Date: 13-Oct-2015 13:32:30 Instrument ID: SMS_G6
Lims ID: STD120 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

62 Caprolactam, CAS: 105-60-2

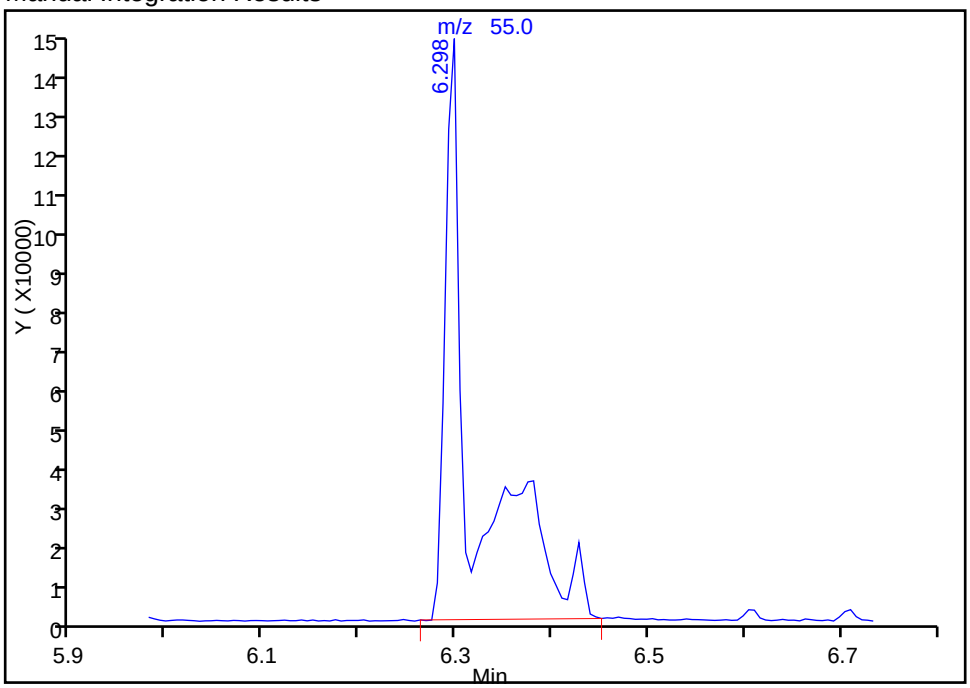
Processing Integration Results

RT: 6.30
Area: 143712
Amount: 78.543997
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 286883
Amount: 126.1320
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:47:38
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20503.D
Lims ID: STD160 HSL
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Oct-2015 13:58:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD160 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:29 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:49:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	127114	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	480725	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	276407	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	453760	40.0	40.0	
* 5 Chrysene-d12	240	13.251	13.257	-0.006	97	410445	40.0	40.0	
* 6 Perylene-d12	264	17.192	17.198	-0.006	96	364729	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	93	709415	160.0	154.5	
$ 8 Phenol-d5	99	4.316	4.310	0.006	99	902211	160.0	156.6	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	90	783985	160.0	156.4	
$ 10 2-Fluorobiphenyl	172	6.963	6.963	0.000	99	1399079	160.0	148.0	
$ 11 2,4,6-Tribromophenol	330	8.445	8.451	-0.006	86	161603	160.0	159.0	
$ 12 Terphenyl-d14	244	11.116	11.122	-0.006	98	1370801	160.0	154.3	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	289848	160.0	151.8	
14 N-Nitrosodimethylamine	74	2.452	2.446	0.006	92	457686	160.0	157.0	
15 Pyridine	79	2.505	2.499	0.006	91	803569	160.0	155.5	
23 Phenol	94	4.328	4.322	0.006	99	897620	160.0	154.2	
24 Aniline	93	4.381	4.375	0.006	98	1138552	160.0	155.8	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	96	700778	160.0	151.2	
26 2-Chlorophenol	128	4.499	4.493	0.006	97	740982	160.0	154.8	
27 1,3-Dichlorobenzene	146	4.640	4.640	0.000	98	742210	160.0	151.0	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	94	756233	160.0	152.7	
29 Benzyl alcohol	108	4.799	4.793	0.005	95	486191	160.0	156.6	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	97	724435	160.0	152.8	
31 2-Methylphenol	108	4.887	4.887	0.000	94	675117	160.0	155.4	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	94	969645	160.0	148.8	
38 3 & 4 Methylphenol	108	5.034	5.028	0.006	98	709057	160.0	154.3	
39 3-Methylphenol	108	5.034	5.028	0.006	98	709057	160.0	154.3	
40 4-Methylphenol	108	5.034	5.028	0.006	95	709057	160.0	154.3	
41 N-Nitrosodi-n-propylamine	70	5.051	5.046	0.005	70	493017	160.0	150.8	
42 Acetophenone	105	5.051	5.051	0.000	94	939063	160.0	150.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.175	5.175	0.000	96	321388	160.0	153.3	
44 Nitrobenzene	77	5.216	5.216	0.000	90	735421	160.0	155.4	
46 Isophorone	82	5.451	5.446	0.005	99	1421951	160.0	156.6	
48 2-Nitrophenol	139	5.528	5.528	0.000	94	396116	160.0	160.7	
49 2,4-Dimethylphenol	107	5.546	5.546	0.000	94	701564	160.0	153.9	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	843326	160.0	153.7	
52 Benzoic acid	105	5.681	5.646	0.035	79	1185259	320.0	339.6	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	572336	160.0	155.3	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	94	577994	160.0	149.7	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	98	569393	160.0	156.6	
57 Naphthalene	128	5.928	5.928	0.000	97	2005214	160.0	152.5	
58 4-Chloroaniline	127	5.963	5.963	0.000	96	962113	160.0	153.9	
59 Hexachlorobutadiene	225	6.051	6.057	-0.006	98	305945	160.0	151.5	
62 Caprolactam	55	6.304	6.293	0.011	78	399926	160.0	165.0	M
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	610728	160.0	156.6	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	1340130	160.0	150.7	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	1179689	160.0	151.3	
68 Hexachlorocyclopentadiene	237	6.775	6.781	-0.006	96	360725	160.0	153.1	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	0.000	98	515163	160.0	146.1	
70 2,4,6-Trichlorophenol	196	6.887	6.887	0.000	81	371467	160.0	150.3	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	94	416283	160.0	154.5	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	1571938	160.0	148.6	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	98	1188463	160.0	148.2	
77 2-Nitroaniline	65	7.187	7.187	0.000	86	444742	160.0	155.7	
79 Dimethyl phthalate	163	7.363	7.363	0.000	99	1374581	160.0	144.5	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	86	276045	160.0	164.3	
81 2,6-Dinitrotoluene	165	7.422	7.422	0.000	95	336787	160.0	152.6	
82 Acenaphthylene	152	7.516	7.516	0.000	99	2061724	160.0	149.9	
83 3-Nitroaniline	138	7.598	7.592	0.006	97	450609	160.0	158.0	
84 Acenaphthene	153	7.687	7.687	0.000	95	1224814	160.0	148.0	
86 2,4-Dinitrophenol	184	7.704	7.698	0.006	84	488242	320.0	335.2	
87 4-Nitrophenol	109	7.751	7.745	0.006	95	442581	320.0	313.3	
89 2,4-Dinitrotoluene	165	7.834	7.834	0.000	95	461607	160.0	156.4	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	1778106	160.0	148.0	
92 2,3,4,6-Tetrachlorophenol	232	7.981	7.987	-0.006	75	338223	160.0	158.2	
94 Diethyl phthalate	149	8.063	8.063	0.000	98	1410178	160.0	146.7	
96 4-Chlorophenyl phenyl ethe	204	8.187	8.192	-0.005	94	643360	160.0	149.9	
98 Fluorene	166	8.204	8.204	0.000	95	1400397	160.0	145.1	
99 4-Nitroaniline	138	8.216	8.210	0.006	86	453437	160.0	158.6	
100 4,6-Dinitro-2-methylphenol	198	8.251	8.245	0.006	80	542648	320.0	331.3	
102 N-Nitrosodiphenylamine	169	8.310	8.304	0.006	62	1983095	320.0	292.5	
103 Azobenzene	77	8.351	8.351	0.000	99	1536590	160.0	151.2	
104 1,2-Diphenylhydrazine	77	8.351	8.351	0.000	100	1536590	161.8	152.8	
111 4-Bromophenyl phenyl ether	248	8.681	8.686	-0.005	70	346248	160.0	155.9	
112 Hexachlorobenzene	284	8.781	8.781	0.000	93	349817	160.0	154.6	
116 Pentachlorophenol	266	8.963	8.963	0.000	90	460756	320.0	336.7	
119 Phenanthrene	178	9.175	9.181	-0.006	98	2023597	160.0	151.6	
120 Anthracene	178	9.228	9.228	0.000	98	2058108	160.0	153.0	
122 Carbazole	167	9.375	9.381	-0.006	95	2094042	160.0	153.6	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	2513524	160.0	154.5	
128 Fluoranthene	202	10.557	10.563	-0.006	98	2235735	160.0	154.3	
131 Pyrene	202	10.898	10.898	0.000	97	2333809	160.0	154.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.892	11.892	0.000	97	738098	160.0	152.7	
137 Butyl benzyl phthalate	149	12.010	12.016	-0.006	97	1197658	160.0	160.3	
140 3,3'-Dichlorobenzidine	252	13.180	13.180	0.000	76	637523	160.0	163.5	
141 Benzo[a]anthracene	228	13.227	13.233	-0.006	99	2067517	160.0	157.2	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	1620539	160.0	164.8	
143 Chrysene	228	13.316	13.316	0.000	98	2000180	160.0	155.7	
144 Di-n-octyl phthalate	149	15.180	15.186	-0.006	99	2814996	160.0	167.5	
146 Benzo[b]fluoranthene	252	16.110	16.104	0.006	99	1841962	160.0	161.3	
147 Benzo[k]fluoranthene	252	16.192	16.186	0.006	98	1901358	160.0	160.8	
148 Benzo[a]pyrene	252	17.039	17.033	0.006	84	1852727	160.0	162.6	
151 Indeno[1,2,3-cd]pyrene	276	20.339	20.321	0.018	96	1556042	160.0	165.9	
152 Dibenz(a,h)anthracene	278	20.421	20.409	0.012	96	1507548	160.0	169.9	
153 Benzo[g,h,i]perylene	276	21.074	21.056	0.018	94	1650647	160.0	162.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA160_00020 Amount Added: 200.00 Units: uL

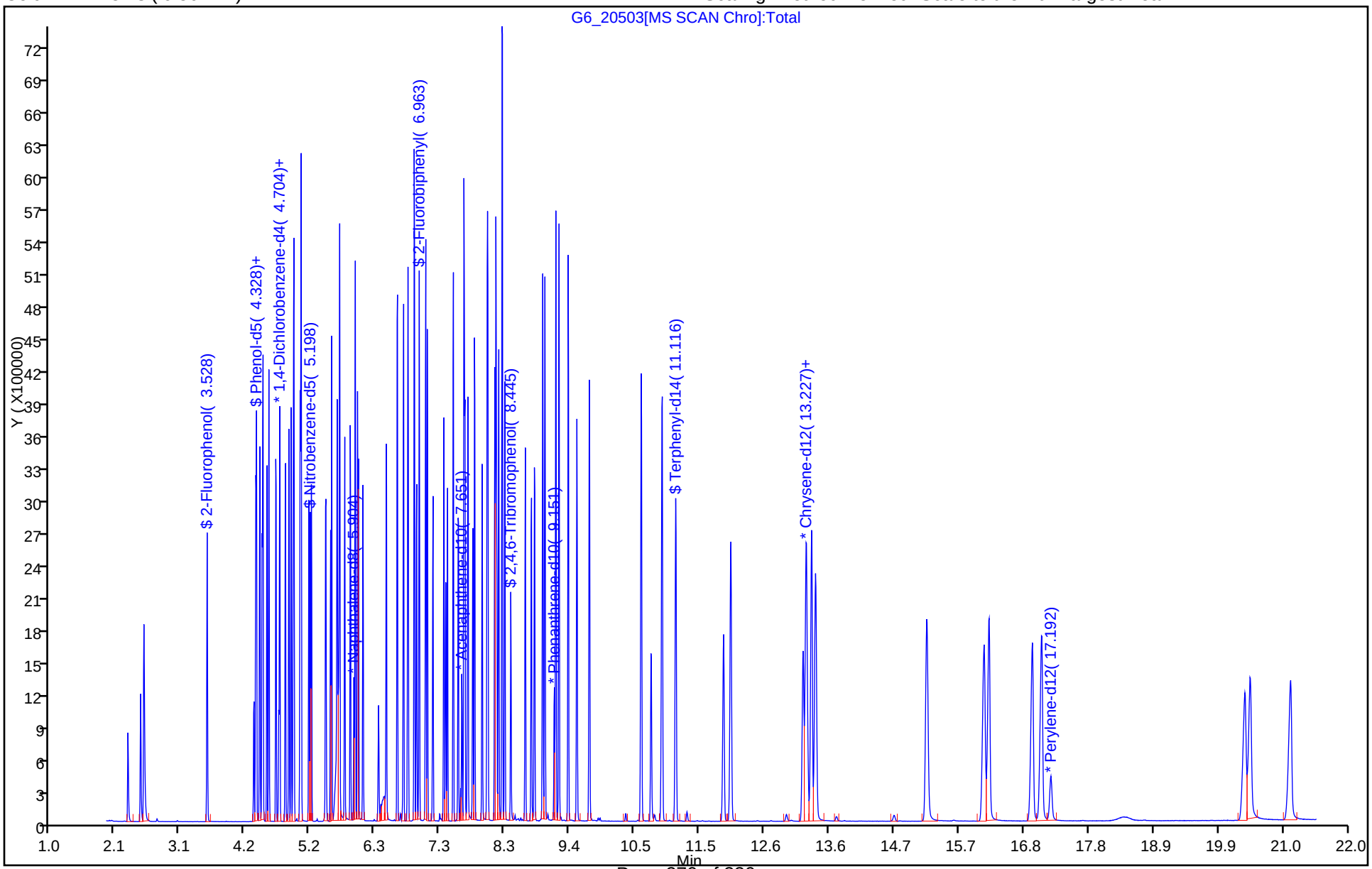
Report Date: 23-Oct-2015 07:33:31 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20503.D

Injection Date:	13-Oct-2015 13:58:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD160 HSL			Worklist Smp#:	9
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

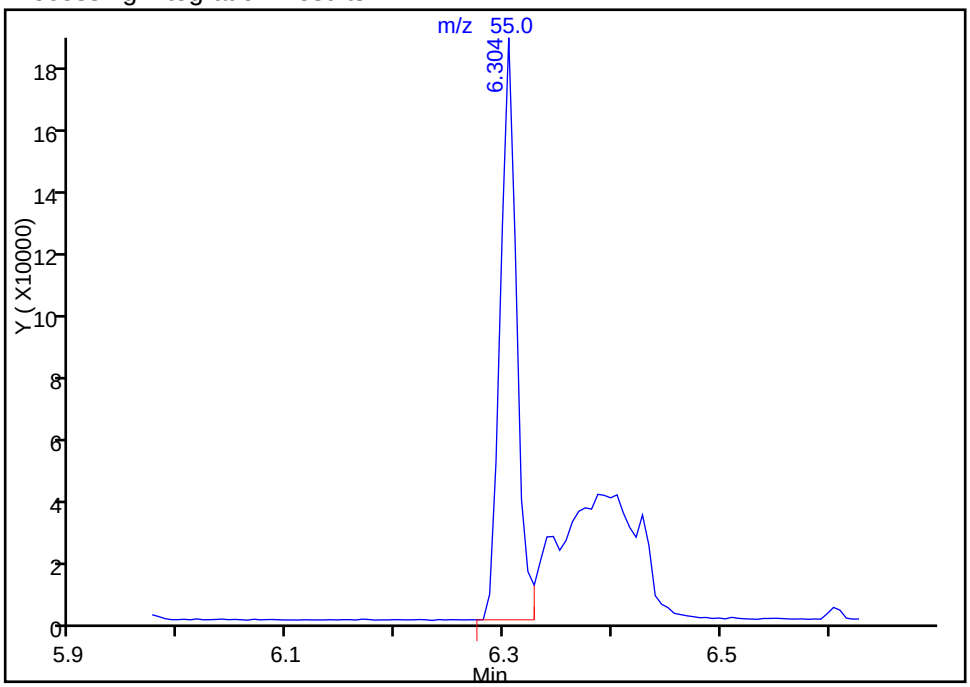
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20503.D
Injection Date: 13-Oct-2015 13:58:30 Instrument ID: SMS_G6
Lims ID: STD160 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

62 Caprolactam, CAS: 105-60-2

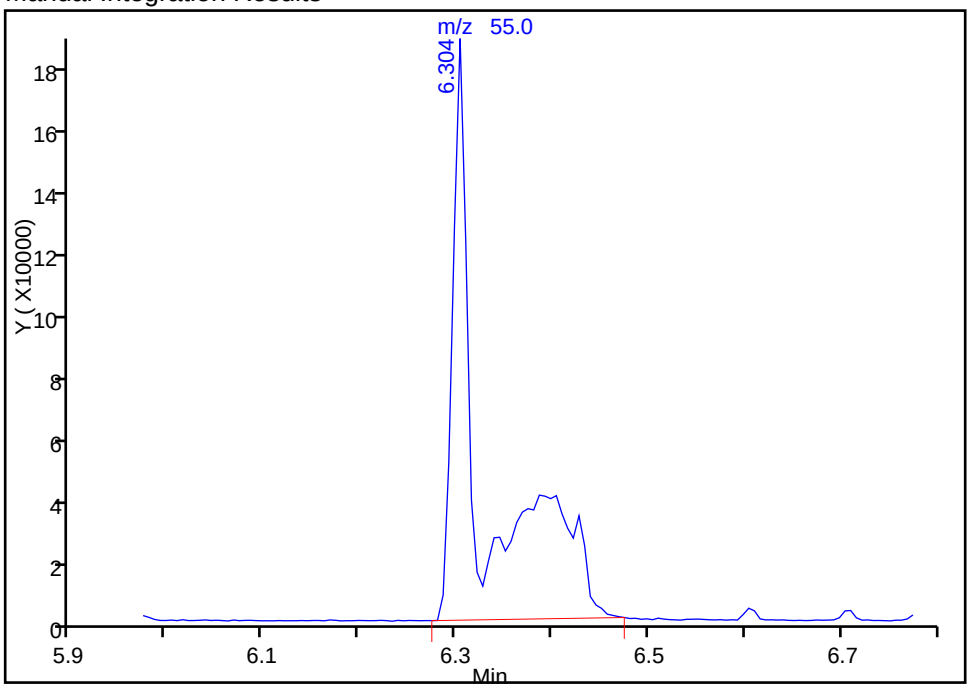
Processing Integration Results

RT: 6.30
Area: 197843
Amount: 93.833520
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 399926
Amount: 165.0241
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:49:20
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D
Lims ID: STD200 HSL
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Oct-2015 14:24:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD200 HSL
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:37 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:51:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	126152	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	488512	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	273741	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	462306	40.0	40.0	
* 5 Chrysene-d12	240	13.251	13.257	-0.006	97	409354	40.0	40.0	
* 6 Perylene-d12	264	17.192	17.198	-0.006	95	373967	40.0	40.0	
$ 7 2-Fluorophenol	112	3.528	3.522	0.006	93	896161	200.0	196.6	
$ 8 Phenol-d5	99	4.316	4.310	0.006	99	1136139	200.0	198.7	
$ 9 Nitrobenzene-d5	82	5.198	5.198	0.000	91	989283	200.0	194.3	
$ 10 2-Fluorobiphenyl	172	6.963	6.963	0.000	99	1713110	200.0	183.0	
$ 11 2,4,6-Tribromophenol	330	8.451	8.451	0.000	93	203701	200.0	202.3	
$ 12 Terphenyl-d14	244	11.116	11.122	-0.006	98	1690320	200.0	190.7	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	372270	200.0	196.4	
14 N-Nitrosodimethylamine	74	2.451	2.446	0.005	92	587395	200.0	203.0	
15 Pyridine	79	2.504	2.499	0.005	92	1029506	200.0	200.7	
23 Phenol	94	4.328	4.322	0.006	99	1125729	200.0	194.9	
24 Aniline	93	4.381	4.375	0.006	98	1451931	200.0	200.2	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	887382	200.0	193.0	
26 2-Chlorophenol	128	4.498	4.493	0.005	97	933891	200.0	196.6	
27 1,3-Dichlorobenzene	146	4.645	4.640	0.005	98	933969	200.0	191.4	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	93	942480	200.0	191.8	
29 Benzyl alcohol	108	4.798	4.793	0.005	94	610192	200.0	198.0	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	97	902062	200.0	191.8	
31 2-Methylphenol	108	4.893	4.887	0.005	94	848825	200.0	196.9	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	94	1186902	200.0	183.5	
38 3 & 4 Methylphenol	108	5.040	5.028	0.012	95	891089	200.0	195.4	
39 3-Methylphenol	108	5.040	5.028	0.012	95	891089	200.0	195.4	
40 4-Methylphenol	108	5.040	5.028	0.012	94	891089	200.0	195.4	
41 N-Nitrosodi-n-propylamine	70	5.051	5.046	0.005	70	608968	200.0	187.7	
42 Acetophenone	105	5.051	5.051	0.000	93	1159693	200.0	187.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.175	5.175	0.000	96	403324	200.0	193.8	
44 Nitrobenzene	77	5.222	5.216	0.006	89	934693	200.0	194.4	
46 Isophorone	82	5.451	5.446	0.005	99	1769403	200.0	191.7	
48 2-Nitrophenol	139	5.528	5.528	0.000	95	497977	200.0	198.8	
49 2,4-Dimethylphenol	107	5.545	5.546	-0.001	95	869669	200.0	187.8	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	1056907	200.0	189.6	
52 Benzoic acid	105	5.692	5.646	0.046	90	1524074	400.0	428.4	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	96	717357	200.0	191.6	
54 1,2,4-Trichlorobenzene	180	5.851	5.845	0.006	94	725757	200.0	185.0	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	97	707526	200.0	191.5	
57 Naphthalene	128	5.928	5.928	0.000	97	2486190	200.0	186.0	
58 4-Chloroaniline	127	5.963	5.963	0.000	97	1204936	200.0	189.7	
59 Hexachlorobutadiene	225	6.051	6.057	-0.006	98	381258	200.0	185.8	
62 Caprolactam	55	6.310	6.293	0.017	78	507895	200.0	206.2	M
64 4-Chloro-3-methylphenol	107	6.434	6.428	0.006	97	757685	200.0	191.1	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	1643069	200.0	181.9	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	1471732	200.0	185.7	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	97	451637	200.0	193.5	
69 1,2,4,5-Tetrachlorobenzene	216	6.787	6.787	-0.001	98	635634	200.0	177.4	
70 2,4,6-Trichlorophenol	196	6.886	6.887	-0.001	83	453444	200.0	185.3	
72 2,4,5-Trichlorophenol	196	6.922	6.922	0.000	93	518487	200.0	194.2	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	1946049	200.0	185.7	
75 2-Chloronaphthalene	162	7.098	7.092	0.006	97	1463053	200.0	184.2	
77 2-Nitroaniline	65	7.186	7.187	-0.001	86	554157	200.0	195.9	
79 Dimethyl phthalate	163	7.363	7.363	0.000	98	1711526	200.0	181.7	
80 1,3-Dinitrobenzene	168	7.398	7.392	0.006	88	348362	200.0	209.4	
81 2,6-Dinitrotoluene	165	7.422	7.422	0.000	95	421483	200.0	192.9	
82 Acenaphthylene	152	7.516	7.516	0.000	99	2545547	200.0	186.9	
83 3-Nitroaniline	138	7.598	7.592	0.006	95	563425	200.0	199.5	
84 Acenaphthene	153	7.686	7.687	-0.001	95	1507511	200.0	183.9	
86 2,4-Dinitrophenol	184	7.704	7.698	0.006	83	614283	400.0	425.9	
87 4-Nitrophenol	109	7.757	7.745	0.012	93	551161	400.0	394.0	
89 2,4-Dinitrotoluene	165	7.833	7.834	-0.001	93	570251	200.0	195.0	
90 Dibenzofuran	168	7.863	7.863	0.000	97	2201617	200.0	185.1	
92 2,3,4,6-Tetrachlorophenol	232	7.986	7.987	-0.001	75	422378	200.0	199.5	
94 Diethyl phthalate	149	8.063	8.063	0.000	98	1662414	200.0	174.7	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	95	781670	200.0	183.9	
98 Fluorene	166	8.204	8.204	0.000	95	1737505	200.0	181.8	
99 4-Nitroaniline	138	8.222	8.210	0.012	86	566834	200.0	200.1	
100 4,6-Dinitro-2-methylphenol	198	8.257	8.245	0.012	86	681408	400.0	408.3	
102 N-Nitrosodiphenylamine	169	8.310	8.304	0.006	62	2411199	400.0	349.1	
103 Azobenzene	77	8.351	8.351	0.000	100	1884459	200.0	187.2	
104 1,2-Diphenylhydrazine	77	8.351	8.351	0.000	100	1884459	202.2	189.3	
111 4-Bromophenyl phenyl ether	248	8.680	8.686	-0.006	70	427788	200.0	189.0	
112 Hexachlorobenzene	284	8.780	8.781	-0.001	93	432305	200.0	187.5	
116 Pentachlorophenol	266	8.963	8.963	0.000	90	575366	400.0	412.7	
119 Phenanthrene	178	9.175	9.181	-0.006	98	2458817	200.0	180.8	
120 Anthracene	178	9.228	9.228	0.000	98	2520705	200.0	183.9	
122 Carbazole	167	9.380	9.381	-0.001	96	2561037	200.0	184.4	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	3092482	200.0	186.6	
128 Fluoranthene	202	10.563	10.563	0.000	98	2759776	200.0	186.9	
131 Pyrene	202	10.898	10.898	0.000	97	2879152	200.0	191.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.892	11.892	0.000	97	890510	200.0	184.7	
137 Butyl benzyl phthalate	149	12.010	12.016	-0.006	97	1493344	200.0	200.4	
140 3,3'-Dichlorobenzidine	252	13.180	13.180	0.000	75	796912	200.0	204.9	
141 Benzo[a]anthracene	228	13.227	13.233	-0.006	99	2571868	200.0	196.1	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	2016398	200.0	205.6	
143 Chrysene	228	13.321	13.316	0.005	98	2469473	200.0	192.8	
144 Di-n-octyl phthalate	149	15.180	15.186	-0.006	99	3577130	200.0	213.4	
146 Benzo[b]fluoranthene	252	16.115	16.104	0.011	99	2348789	200.0	200.6	
147 Benzo[k]fluoranthene	252	16.198	16.186	0.012	98	2353328	200.0	194.1	
148 Benzo[a]pyrene	252	17.045	17.033	0.012	80	2323584	200.0	198.9	
151 Indeno[1,2,3-cd]pyrene	276	20.339	20.321	0.018	96	1960220	200.0	209.5	M
152 Dibenz(a,h)anthracene	278	20.427	20.409	0.018	96	1950327	200.0	214.4	
153 Benzo[g,h,i]perylene	276	21.080	21.056	0.024	96	2092801	200.0	200.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA200_00020 Amount Added: 200.00 Units: uL

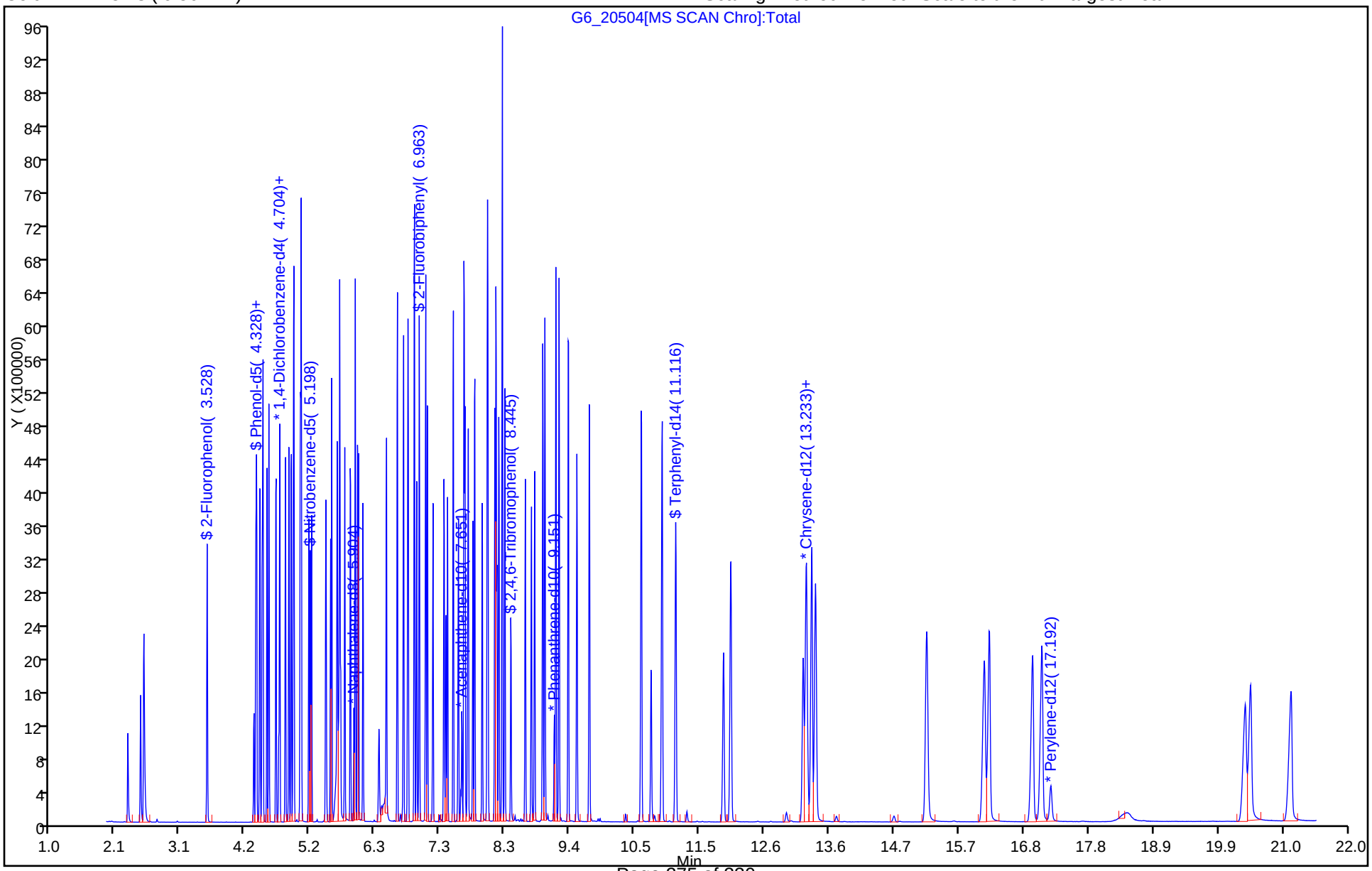
Report Date: 23-Oct-2015 07:33:38 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Injection Date:	13-Oct-2015 14:24:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	STD200 HSL			Worklist Smp#:	10
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

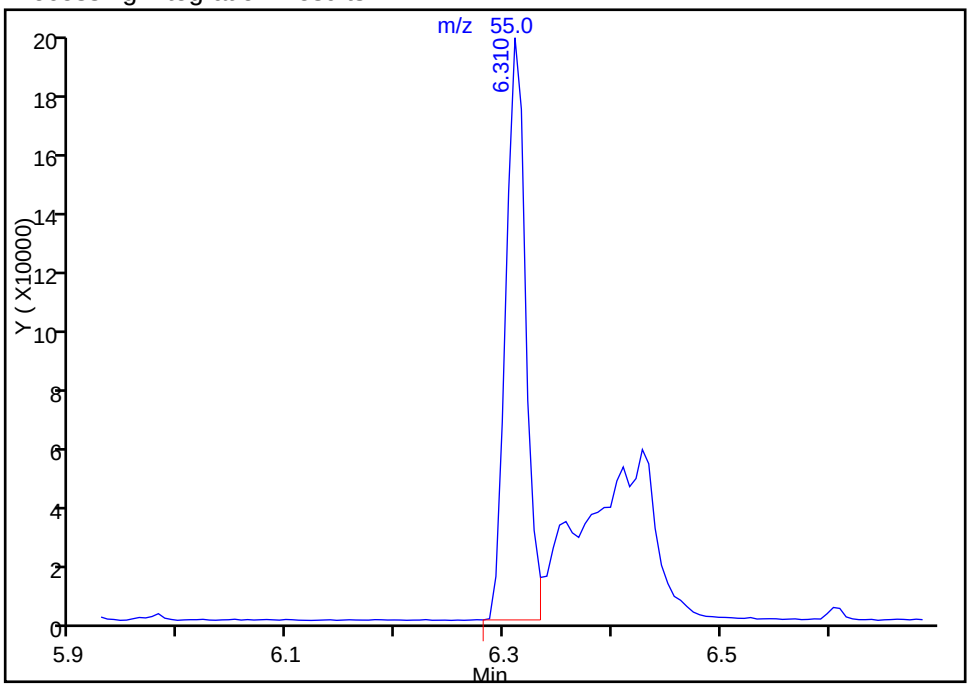
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D
Injection Date: 13-Oct-2015 14:24:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

62 Caprolactam, CAS: 105-60-2

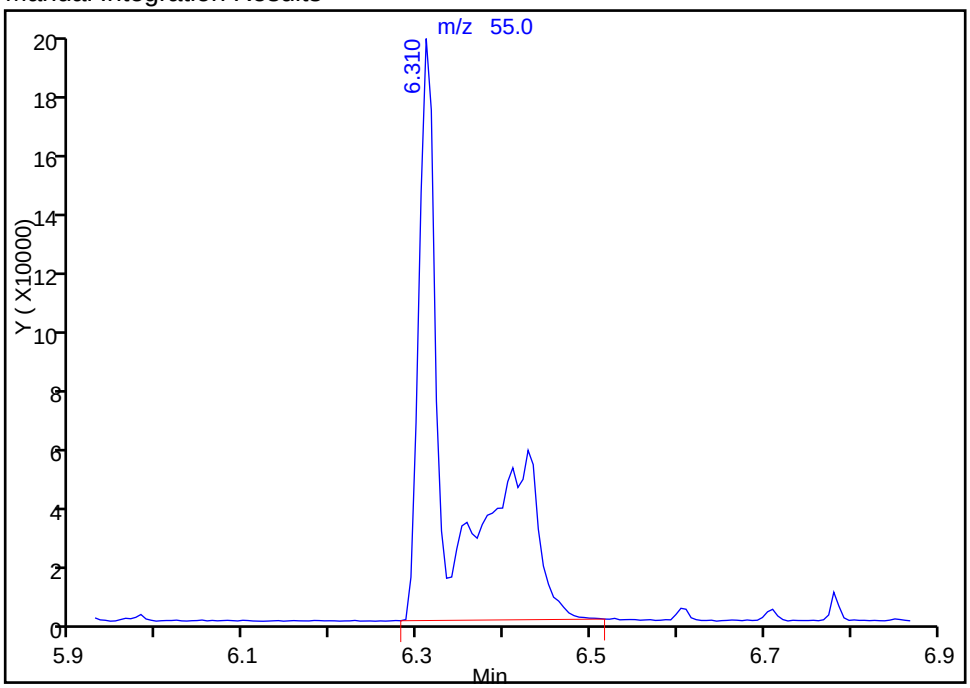
Processing Integration Results

RT: 6.31
Area: 252438
Amount: 109.6110
Amount Units: ug/ml



Manual Integration Results

RT: 6.31
Area: 507895
Amount: 206.2354
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:51:18
Audit Action: Manually Integrated
Audit Reason: Split Peak

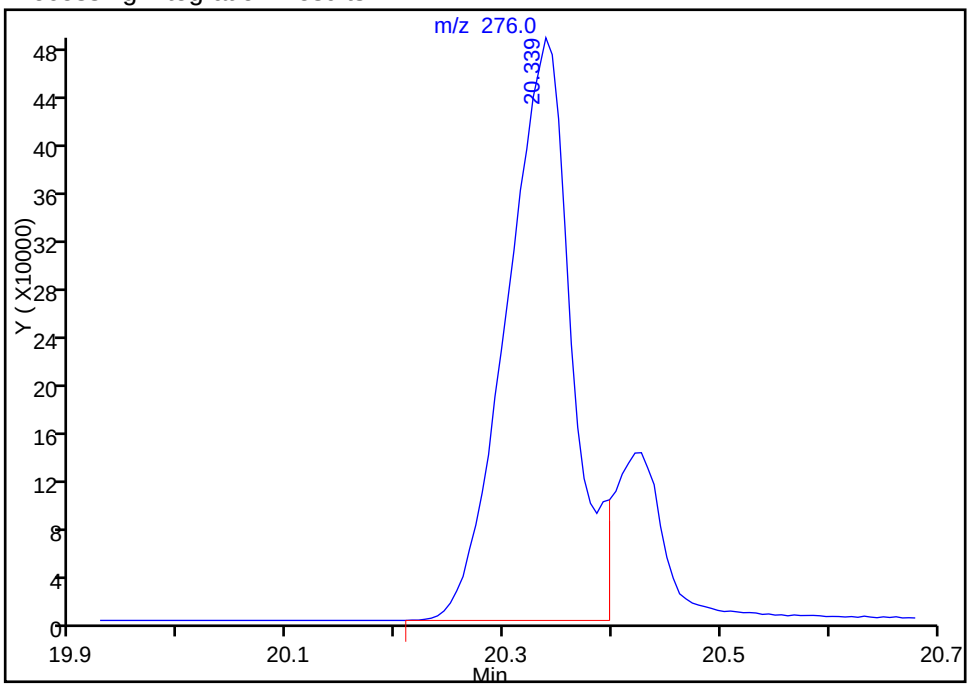
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D
Injection Date: 13-Oct-2015 14:24:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

151 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

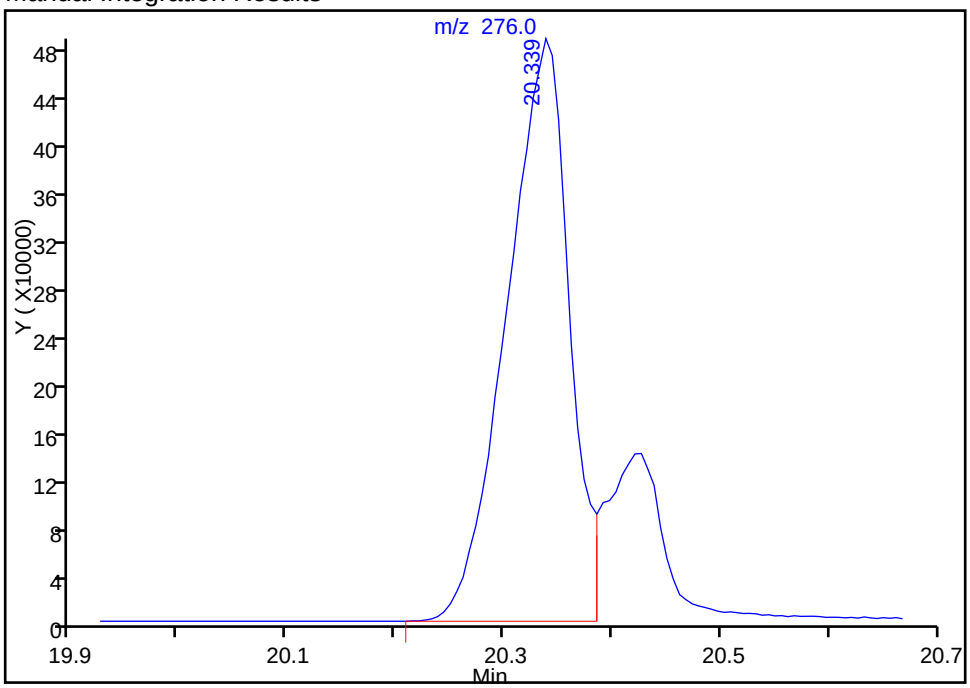
Processing Integration Results

RT: 20.34
Area: 2031243
Amount: 216.1100
Amount Units: ug/ml



Manual Integration Results

RT: 20.34
Area: 1960220
Amount: 209.5432
Amount Units: ug/ml



Reviewer: kiekeld, 23-Oct-2015 06:51:18
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: ICV 280-300666/11 Calibration Date: 10/13/2015 14:50

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20505.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6010	0.5834		97.1	100	-2.9	30.0
N-Nitrosodimethylamine	Ave	0.9173	0.7769		84.7	100	-15.3	30.0
Pyridine	Ave	1.626	1.582		97.3	100	-2.7	30.0
Phenol	Ave	1.831	1.800	0.8000	98.3	100	-1.7	30.0
Aniline	Ave	2.300	2.221		96.6	100	-3.4	30.0
Bis(2-chloroethyl)ether	Ave	1.458	1.404	0.7000	96.3	100	-3.7	30.0
2-Chlorophenol	Ave	1.506	1.486	0.8000	98.7	100	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.547	1.469		94.9	100	-5.1	30.0
1,4-Dichlorobenzene	Ave	1.558	1.537		98.6	100	-1.4	30.0
Benzyl alcohol	Ave	0.9772	0.9732		99.6	100	-0.4	30.0
1,2-Dichlorobenzene	Ave	1.491	1.446		97.0	100	-3.0	30.0
2-Methylphenol	Ave	1.367	1.368	0.7000	100	100	0.0	30.0
bis (2-chloroisopropyl) ether	Ave	2.051	2.000	0.0100	97.5	100	-2.5	30.0
3 & 4 Methylphenol	Ave	1.446	1.433		99.1	100	-0.9	30.0
3-Methylphenol	Ave	1.446	1.433		99.1	100	-0.9	30.0
4-Methylphenol	Ave	1.446	1.433	0.6000	99.1	100	-0.9	30.0
N-Nitrosodi-n-propylamine	Ave	1.029	0.9914	0.5000	96.4	100	-3.6	30.0
Acetophenone	Ave	1.960	1.898	0.0100	96.8	100	-3.2	30.0
Hexachloroethane	Ave	0.6598	0.6623	0.3000	100	100	0.4	30.0
Nitrobenzene	Ave	0.3938	0.3829		97.2	100	-2.8	30.0
Isophorone	Ave	0.7557	0.7258	0.4000	96.0	100	-4.0	30.0
2-Nitrophenol	Ave	0.2051	0.2056	0.1000	100	100	0.2	30.0
2,4-Dimethylphenol	Ave	0.3793	0.3499	0.2000	92.2	100	-7.8	30.0
Bis(2-chloroethoxy)methane	Ave	0.4566	0.4345	0.3000	95.2	100	-4.8	30.0
Benzoic acid	Lin2		0.3006		209	200	4.5	30.0
2,4-Dichlorophenol	Ave	0.3066	0.2954	0.2000	96.4	100	-3.6	30.0
1,2,4-Trichlorobenzene	Ave	0.3212	0.2966		92.3	100	-7.7	30.0
Naphthalene	Ave	1.094	1.049	0.7000	95.8	100	-4.2	30.0
4-Chloroaniline	Ave	0.5201	0.4834	0.0100	92.9	100	-7.1	30.0
2,6-Dichlorophenol	Ave	0.3025	0.2926		96.7	100	-3.3	30.0
Hexachlorobutadiene	Ave	0.1680	0.1624	0.0100	96.7	100	-3.3	30.0
4-Chloro-3-methylphenol	Ave	0.3246	0.3147	0.2000	97.0	100	-3.0	30.0
2-Methylnaphthalene	Ave	0.7398	0.6733	0.4000	91.0	100	-9.0	30.0
1-Methylnaphthalene	Ave	0.6490	0.6436		99.2	100	-0.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2934	0.2788	0.0100	95.0	100	-5.0	30.0
Hexachlorocyclopentadiene	Ave	0.3410	0.3370	0.0500	98.8	100	-1.2	30.0
2,4,6-Trichlorophenol	Ave	0.3576	0.3491	0.2000	97.6	100	-2.4	30.0
2,4,5-Trichlorophenol	Ave	0.3900	0.3957	0.2000	101	100	1.5	30.0
1,1'-Biphenyl	Ave	1.531	1.471		96.0	100	-4.0	30.0
2-Chloronaphthalene	Ave	1.161	1.120	0.8000	96.5	100	-3.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: ICV 280-300666/11 Calibration Date: 10/13/2015 14:50

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20505.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Nitroaniline	Ave	0.4133	0.4009	0.0100	97.0	100	-3.0	30.0
Dimethyl phthalate	Ave	1.376	1.276	0.0100	92.7	100	-7.3	30.0
1,3-Dinitrobenzene	Ave	0.2431	0.2492		102	100	2.5	30.0
2,6-Dinitrotoluene	Ave	0.3193	0.3130	0.2000	98.0	100	-2.0	30.0
Acenaphthylene	Ave	1.990	1.849	0.9000	92.9	100	-7.1	30.0
3-Nitroaniline	Ave	0.4128	0.3987	0.0100	96.6	100	-3.4	30.0
Acenaphthene	Ave	1.198	1.159	0.9000	96.8	100	-3.2	30.0
2,4-Dinitrophenol	Ave	0.2108	0.2162	0.0100	205	200	2.6	30.0
4-Nitrophenol	Ave	0.2044	0.1995	0.0100	195	200	-2.4	30.0
2,4-Dinitrotoluene	Ave	0.4272	0.4228	0.2000	99.0	100	-1.0	30.0
Dibenzofuran	Ave	1.738	1.655	0.8000	95.2	100	-4.8	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3094	0.3144	0.0100	102	100	1.6	30.0
Diethyl phthalate	Ave	1.391	1.313	0.0100	94.4	100	-5.6	30.0
4-Chlorophenyl phenyl ether	Ave	0.6212	0.5832	0.4000	93.9	100	-6.1	30.0
Fluorene	Ave	1.397	1.323	0.9000	94.7	100	-5.3	30.0
4-Nitroaniline	Ave	0.4139	0.3933	0.0100	95.0	100	-5.0	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1444	0.1478	0.0100	205	200	2.4	30.0
N-Nitrosodiphenylamine	Ave	0.5976	0.5594	0.0100	187	200	-6.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.455	1.425		99.0	101	-2.0	30.0
Azobenzene	Ave	1.471	1.441		98.0	100	-2.0	30.0
4-Bromophenyl phenyl ether	Ave	0.1958	0.1838	0.1000	93.8	100	-6.2	30.0
Hexachlorobenzene	Ave	0.1995	0.1959	0.1000	98.2	100	-1.8	30.0
Pentachlorophenol	Ave	0.1206	0.1299	0.0500	215	200	7.7	30.0
Phenanthrene	Ave	1.177	1.095	0.7000	93.0	100	-7.0	30.0
Anthracene	Ave	1.186	1.130	0.7000	95.3	100	-4.7	30.0
Carbazole	Ave	1.202	1.143	0.0100	95.1	100	-4.9	30.0
Di-n-butyl phthalate	Ave	1.434	1.370	0.0100	95.5	100	-4.5	30.0
Fluoranthene	Ave	1.277	1.211	0.6000	94.8	100	-5.2	30.0
Pyrene	Ave	1.473	1.403	0.6000	95.2	100	-4.8	30.0
Butyl benzyl phthalate	Ave	0.7283	0.7132	0.0100	97.9	100	-2.1	30.0
Benzo[a]anthracene	Ave	1.282	1.256	0.8000	97.9	100	-2.1	30.0
Chrysene	Ave	1.252	1.211	0.7000	96.7	100	-3.3	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.9584	0.9461	0.0100	98.7	100	-1.3	30.0
Di-n-octyl phthalate	Ave	1.638	1.679	0.0100	103	100	2.5	30.0
Benzo[b]fluoranthene	Ave	1.252	1.228	0.7000	98.1	100	-1.9	30.0
Benzo[k]fluoranthene	Ave	1.297	1.296	0.7000	100	100	-0.0	30.0
Benzo[a]pyrene	Ave	1.249	1.236	0.7000	98.9	100	-1.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	0.9141	0.8847	0.5000	96.8	100	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9731	1.014	0.4000	104	100	4.2	30.0
Benzo[g,h,i]perylene	Ave	1.117	1.109	0.5000	99.2	100	-0.8	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20505.D
Lims ID: ICV HSL 1
Client ID:
Sample Type: ICV
Inject. Date: 13-Oct-2015 14:50:30 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV HSL 1
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:37 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:54:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	124422	40.0	40.0	
* 2 Naphthalene-d8	136	5.904	5.904	0.000	100	482785	40.0	40.0	
* 3 Acenaphthene-d10	164	7.651	7.657	-0.006	92	271762	40.0	40.0	
* 4 Phenanthrene-d10	188	9.145	9.151	-0.006	97	463088	40.0	40.0	
* 5 Chrysene-d12	240	13.245	13.257	-0.012	97	416446	40.0	40.0	
* 6 Perylene-d12	264	17.186	17.198	-0.012	96	368251	40.0	40.0	
13 1,4-Dioxane	88	2.246	2.240	0.006	98	181476	100.0	97.1	
14 N-Nitrosodimethylamine	74	2.446	2.446	0.000	92	241657	100.0	84.7	
15 Pyridine	79	2.504	2.499	0.005	92	492077	100.0	97.3	
23 Phenol	94	4.322	4.322	0.000	99	559749	100.0	98.3	
24 Aniline	93	4.381	4.375	0.006	98	690953	100.0	96.6	
25 Bis(2-chloroethyl)ether	93	4.416	4.416	0.000	97	436790	100.0	96.3	
26 2-Chlorophenol	128	4.498	4.493	0.005	97	462208	100.0	98.7	
27 1,3-Dichlorobenzene	146	4.639	4.640	-0.001	98	456862	100.0	94.9	
28 1,4-Dichlorobenzene	146	4.704	4.704	0.000	94	478036	100.0	98.6	
29 Benzyl alcohol	108	4.792	4.793	-0.001	94	302720	100.0	99.6	
30 1,2-Dichlorobenzene	146	4.851	4.851	0.000	97	449790	100.0	97.0	
31 2-Methylphenol	108	4.887	4.887	0.000	94	425579	100.0	100.1	
32 2,2'-oxybis[1-chloropropan	45	4.922	4.922	0.000	94	622066	100.0	97.5	
38 3 & 4 Methylphenol	108	5.034	5.028	0.006	97	445715	100.0	99.1	
39 3-Methylphenol	108	5.034	5.028	0.006	97	445715	100.0	99.1	
40 4-Methylphenol	108	5.034	5.028	0.006	93	445715	100.0	99.1	
41 N-Nitrosodi-n-propylamine	70	5.045	5.046	-0.001	89	308385	100.0	96.4	
42 Acetophenone	105	5.051	5.051	0.000	97	590274	100.0	96.8	
43 Hexachloroethane	117	5.175	5.175	0.000	97	206004	100.0	100.4	
44 Nitrobenzene	77	5.216	5.216	0.000	89	462185	100.0	97.2	
46 Isophorone	82	5.445	5.446	-0.001	99	875983	100.0	96.0	
48 2-Nitrophenol	139	5.528	5.528	0.000	94	248142	100.0	100.2	
49 2,4-Dimethylphenol	107	5.545	5.546	-0.001	94	422264	100.0	92.2	
50 Bis(2-chloroethoxy)methane	93	5.634	5.634	0.000	98	524444	100.0	95.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Benzoic acid	105	5.657	5.646	0.011	89	725674	200.0	209.1	
53 2,4-Dichlorophenol	162	5.757	5.757	0.000	95	356577	100.0	96.4	
54 1,2,4-Trichlorobenzene	180	5.845	5.845	0.000	95	358003	100.0	92.3	
55 2,6-Dichlorophenol	162	5.981	5.981	0.000	97	353109	100.0	96.7	
57 Naphthalene	128	5.928	5.928	0.000	97	1265816	100.0	95.8	
58 4-Chloroaniline	127	5.963	5.963	0.000	97	583391	100.0	92.9	
59 Hexachlorobutadiene	225	6.051	6.057	-0.006	98	196040	100.0	96.7	
64 4-Chloro-3-methylphenol	107	6.428	6.428	0.000	97	379880	100.0	97.0	
65 2-Methylnaphthalene	142	6.610	6.610	0.000	93	812610	100.0	91.0	
67 1-Methylnaphthalene	142	6.710	6.710	0.000	94	776741	100.0	99.2	
68 Hexachlorocyclopentadiene	237	6.781	6.781	0.000	96	228990	100.0	98.8	
69 1,2,4,5-Tetrachlorobenzene	216	6.781	6.787	-0.006	98	336523	100.0	95.0	
70 2,4,6-Trichlorophenol	196	6.881	6.887	-0.006	78	237193	100.0	97.6	
72 2,4,5-Trichlorophenol	196	6.916	6.922	-0.006	94	268857	100.0	101.5	
74 1,1'-Biphenyl	154	7.069	7.069	0.000	95	999069	100.0	96.0	
75 2-Chloronaphthalene	162	7.092	7.092	0.000	97	761253	100.0	96.5	
77 2-Nitroaniline	65	7.180	7.187	-0.007	86	272376	100.0	97.0	
79 Dimethyl phthalate	163	7.363	7.363	0.000	99	867047	100.0	92.7	
80 1,3-Dinitrobenzene	168	7.392	7.392	0.000	90	169324	100.0	102.5	
81 2,6-Dinitrotoluene	165	7.416	7.422	-0.006	95	212663	100.0	98.0	
82 Acenaphthylene	152	7.516	7.516	0.000	98	1256514	100.0	92.9	
83 3-Nitroaniline	138	7.592	7.592	0.000	96	270845	100.0	96.6	
84 Acenaphthene	153	7.686	7.687	-0.001	94	787418	100.0	96.8	
86 2,4-Dinitrophenol	184	7.698	7.698	0.000	84	293753	200.0	205.1	
87 4-Nitrophenol	109	7.745	7.745	0.000	91	271011	200.0	195.1	
89 2,4-Dinitrotoluene	165	7.828	7.834	-0.006	93	287268	100.0	99.0	
90 Dibenzofuran	168	7.857	7.863	-0.006	97	1124689	100.0	95.2	
92 2,3,4,6-Tetrachlorophenol	232	7.980	7.987	-0.007	75	213592	100.0	101.6	
94 Diethyl phthalate	149	8.063	8.063	0.000	98	892381	100.0	94.4	
96 4-Chlorophenyl phenyl ethe	204	8.186	8.192	-0.006	94	396196	100.0	93.9	
98 Fluorene	166	8.204	8.204	0.000	95	898986	100.0	94.7	
99 4-Nitroaniline	138	8.210	8.210	0.000	86	267184	100.0	95.0	
100 4,6-Dinitro-2-methylphenol	198	8.245	8.245	0.000	88	342299	200.0	204.8	
102 N-Nitrosodiphenylamine	169	8.304	8.304	0.000	62	1295205	200.0	187.2	
103 Azobenzene	77	8.345	8.351	-0.006	99	979097	100.0	98.0	
104 1,2-Diphenylhydrazine	77	8.345	8.351	-0.006	99	979097	101.1	99.0	
111 4-Bromophenyl phenyl ether	248	8.680	8.686	-0.006	70	212772	100.0	93.8	
112 Hexachlorobenzene	284	8.775	8.781	-0.007	92	226737	100.0	98.2	
116 Pentachlorophenol	266	8.963	8.963	0.000	91	300792	200.0	215.4	
119 Phenanthrene	178	9.174	9.181	-0.007	98	1267123	100.0	93.0	
120 Anthracene	178	9.222	9.228	-0.006	98	1307882	100.0	95.3	
122 Carbazole	167	9.374	9.381	-0.007	95	1323230	100.0	95.1	
123 Di-n-butyl phthalate	149	9.716	9.722	-0.006	100	1585691	100.0	95.5	
128 Fluoranthene	202	10.557	10.563	-0.006	98	1402057	100.0	94.8	
131 Pyrene	202	10.892	10.898	-0.006	97	1460178	100.0	95.2	
137 Butyl benzyl phthalate	149	12.004	12.016	-0.012	97	742556	100.0	97.9	
141 Benzo[a]anthracene	228	13.221	13.233	-0.012	99	1307172	100.0	97.9	
142 Bis(2-ethylhexyl) phthalat	149	13.380	13.392	-0.012	97	984992	100.0	98.7	
143 Chrysene	228	13.310	13.316	-0.006	98	1260669	100.0	96.7	
144 Di-n-octyl phthalate	149	15.180	15.186	-0.006	99	1748446	100.0	102.5	
146 Benzo[b]fluoranthene	252	16.098	16.104	-0.006	99	1130968	100.0	98.1	
147 Benzo[k]fluoranthene	252	16.174	16.186	-0.012	99	1193423	100.0	100.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Benzo[a]pyrene	252	17.027	17.033	-0.006	80	1138104	100.0	98.9	
151 Indeno[1,2,3-cd]pyrene	276	20.315	20.321	-0.006	97	921019	100.0	96.8	
152 Dibenz(a,h)anthracene	278	20.403	20.409	-0.006	95	933247	100.0	104.2	
153 Benzo[g,h,i]perylene	276	21.056	21.056	0.000	94	1020514	100.0	99.2	

Reagents:

MS-HSLB1B3SSV_00028 Amount Added: 200.00 Units: uL

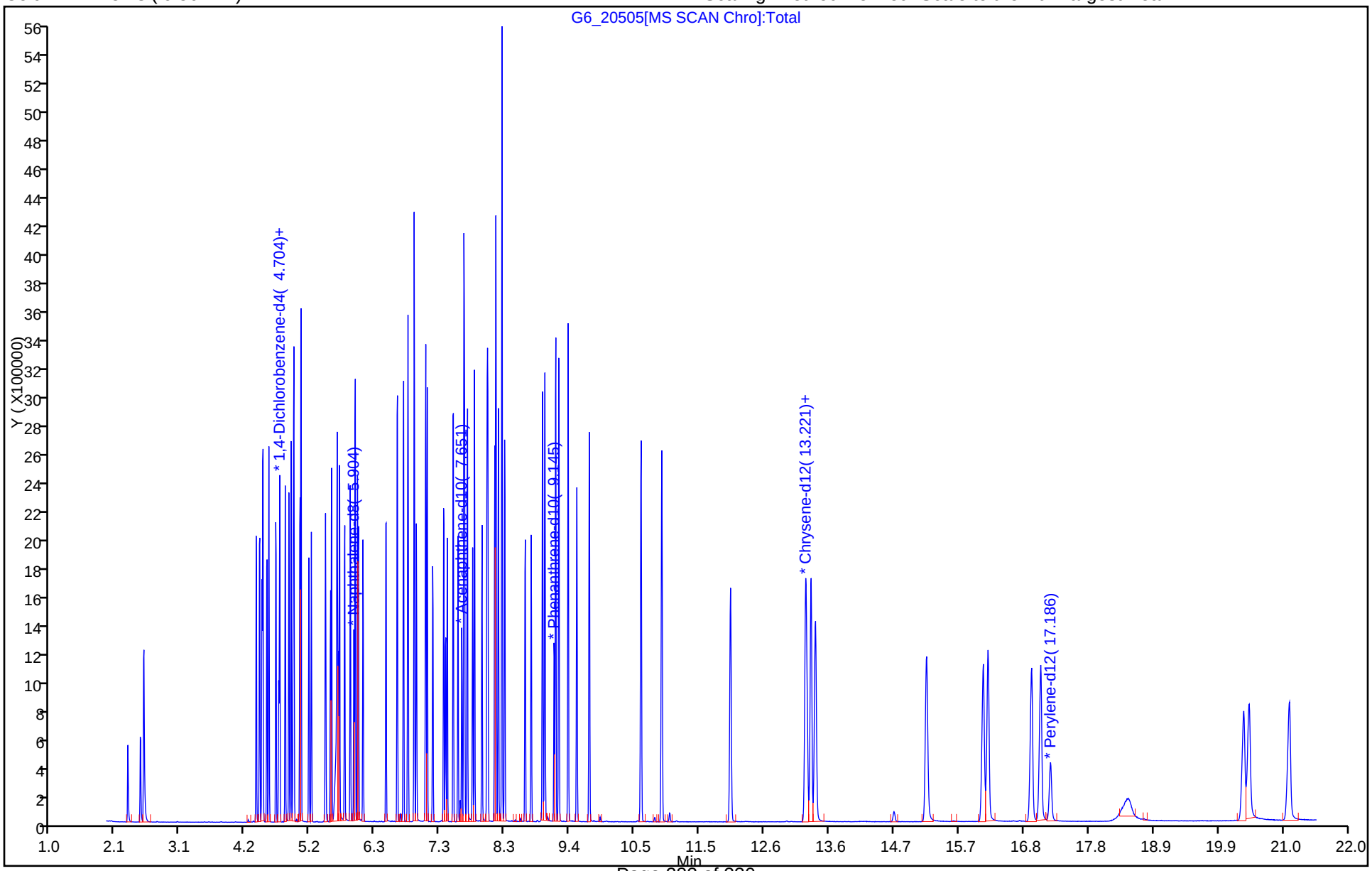
Report Date: 23-Oct-2015 07:33:45 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20505.D

Injection Date:	13-Oct-2015 14:50:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	ICV HSL 1			Worklist Smp#:	11
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: ICV 280-300666/12 Calibration Date: 10/13/2015 15:16

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20506.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.2016	0.1832		90.8	100	-9.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3800	0.4275	0.0100	112	100	12.5	30.0

Report Date: 23-Oct-2015 07:33:49 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20506.D
Lims ID: ICV HSL 2
Client ID:
Sample Type: ICV
Inject. Date: 13-Oct-2015 15:16:30 ALS Bottle#: 11 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV HSL 2
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:37 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:54:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	132083	40.0	40.0	
* 2 Naphthalene-d8	136	5.910	5.904	0.006	100	490763	40.0	40.0	
* 3 Acenaphthene-d10	164	7.657	7.657	0.000	92	272869	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	467381	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	98	424405	40.0	40.0	
* 6 Perylene-d12	264	17.180	17.198	-0.018	96	382978	40.0	40.0	
62 Caprolactam	55	6.275	6.293	-0.018	79	224731	100.0	90.8	
140 3,3'-Dichlorobenzidine	252	13.169	13.180	-0.011	76	453597	100.0	112.5	

Reagents:

MS-HSLB2SSV_00025 Amount Added: 200.00 Units: uL

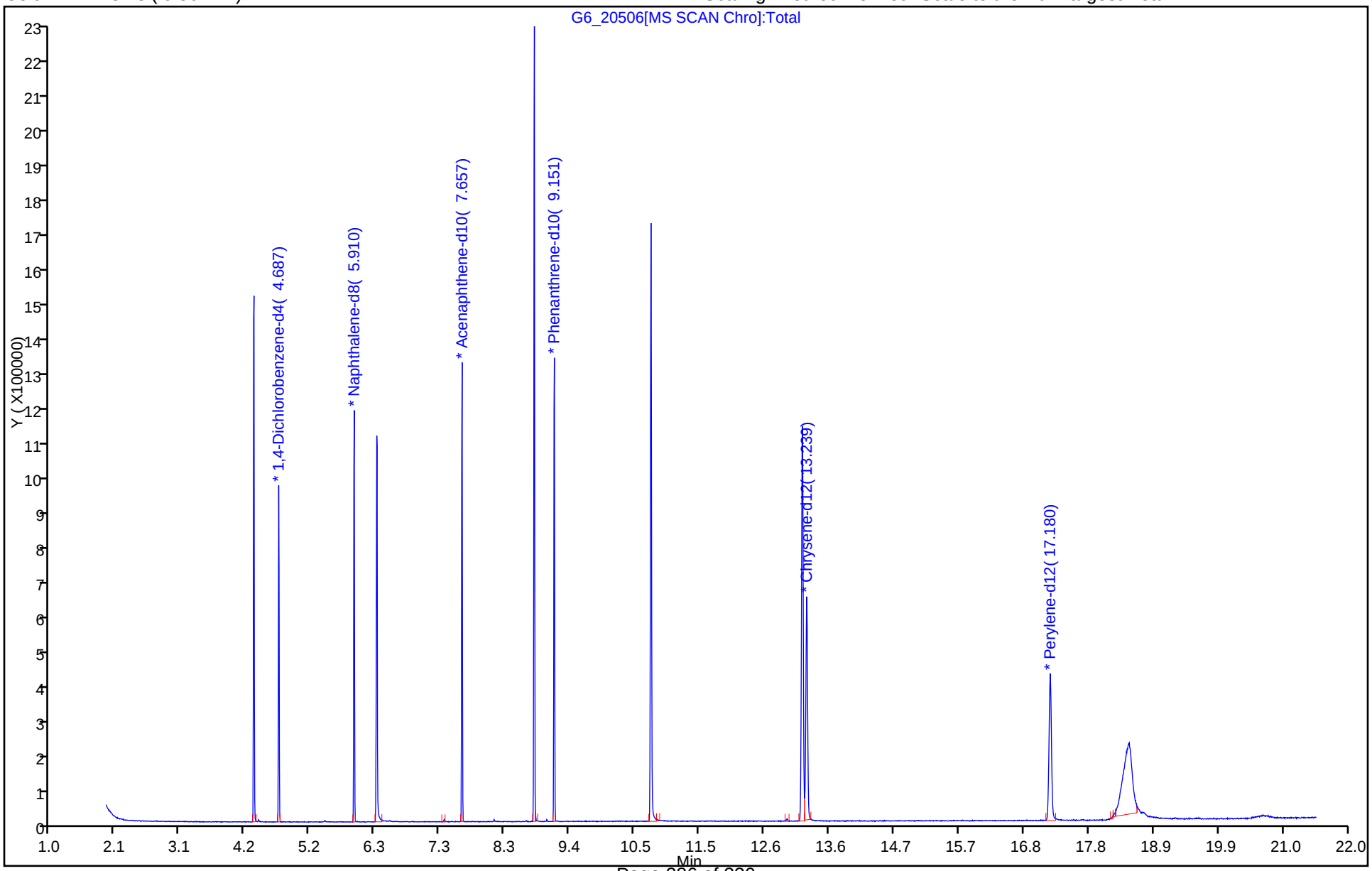
Report Date: 23-Oct-2015 07:33:49 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20506.D

Injection Date:	13-Oct-2015 15:16:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	ICV HSL 2			Worklist Smp#:	12
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: ICV 280-300666/13 Calibration Date: 10/13/2015 15:42

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20507.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Famphur	Ave	0.4711	0.4344		92.2	100	-7.8	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20507.D
Lims ID: ICV FAM
Client ID:
Sample Type: ICV
Inject. Date: 13-Oct-2015 15:42:30 ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV FAM
Operator ID: KIEKELD Instrument ID: SMS_G6
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:33:37 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:54:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.687	4.687	0.000	96	134413	40.0	40.0	
* 2 Naphthalene-d8	136	5.910	5.904	0.006	99	507413	40.0	40.0	
* 3 Acenaphthene-d10	164	7.657	7.657	0.000	91	287464	40.0	40.0	
* 4 Phenanthrene-d10	188	9.151	9.151	0.000	97	484469	40.0	40.0	
* 5 Chrysene-d12	240	13.239	13.257	-0.018	97	483847	40.0	40.0	
* 6 Perylene-d12	264	17.186	17.198	-0.012	95	421870	40.0	40.0	
136 Famphur	218	11.886	11.892	-0.006	98	525392	100.0	92.2	

Reagents:

MS-FAMSSV_100_00013 Amount Added: 200.00 Units: uL

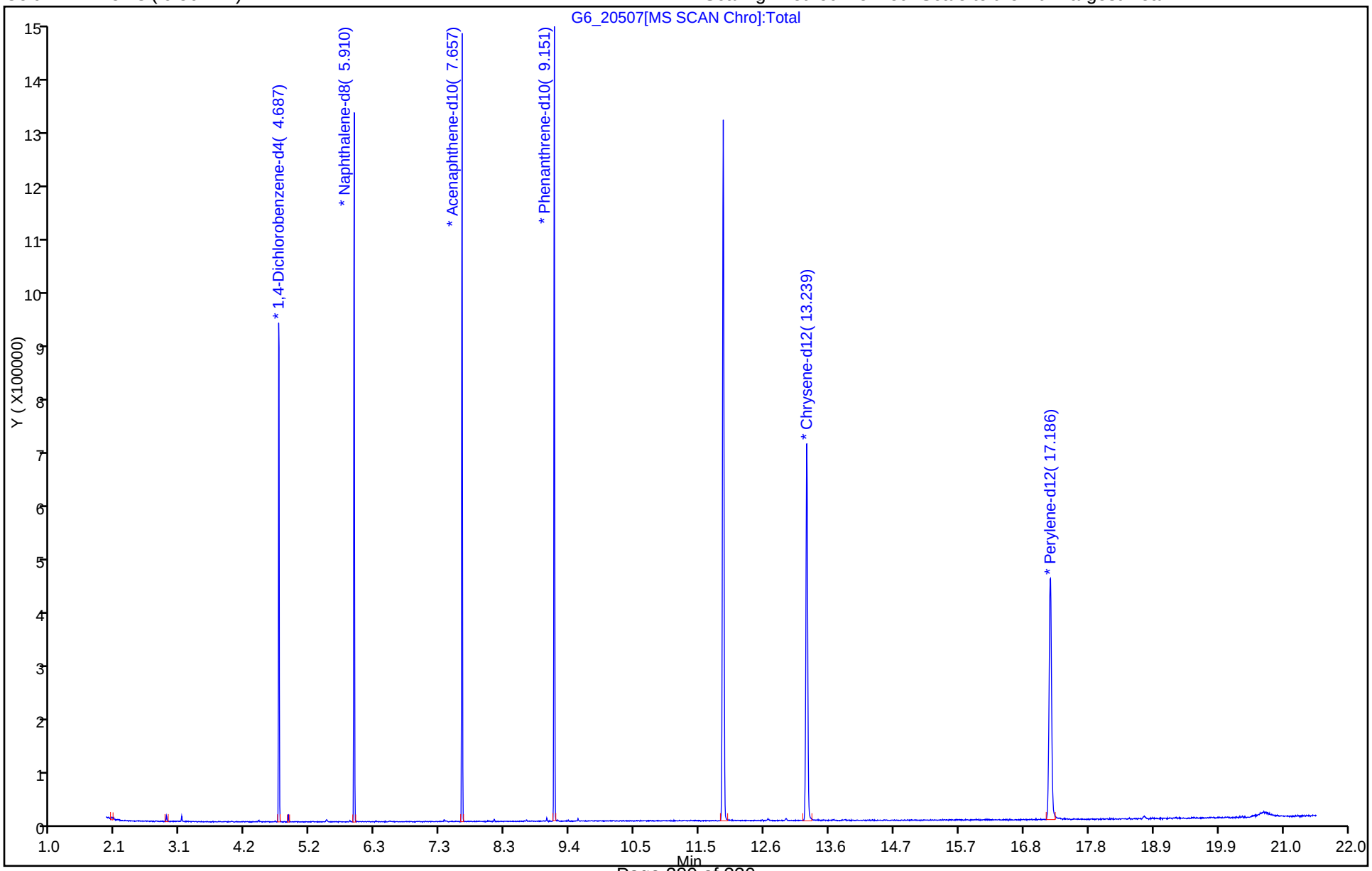
Report Date: 23-Oct-2015 07:33:52 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20507.D

Injection Date:	13-Oct-2015 15:42:30	Instrument ID:	SMS_G6	Operator ID:	KIEKELD
Lims ID:	ICV FAM			Worklist Smp#:	13
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: CCV 280-302954/3 Calibration Date: 11/06/2015 17:46

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20926.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6010	0.6003		79.9	80.0	-0.1	20.0
N-Nitrosodimethylamine	Ave	0.9173	0.8936		77.9	80.0	-2.6	20.0
Pyridine	Ave	1.626	1.572		77.3	80.0	-3.3	20.0
Phenol	Ave	1.831	1.863	0.8000	81.4	80.0	1.8	20.0
Aniline	Ave	2.300	2.317		80.6	80.0	0.7	20.0
Bis(2-chloroethyl)ether	Ave	1.458	1.478	0.7000	81.1	80.0	1.4	20.0
2-Chlorophenol	Ave	1.506	1.515	0.8000	80.5	80.0	0.6	20.0
1,3-Dichlorobenzene	Ave	1.547	1.535		79.4	80.0	-0.8	20.0
1,4-Dichlorobenzene	Ave	1.558	1.565		80.4	80.0	0.4	20.0
Benzyl alcohol	Ave	0.9772	0.9667		79.1	80.0	-1.1	20.0
1,2-Dichlorobenzene	Ave	1.491	1.523		81.7	80.0	2.1	20.0
2-Methylphenol	Ave	1.367	1.349	0.7000	78.9	80.0	-1.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.051	1.956	0.0100	76.3	80.0	-4.6	20.0
3 & 4 Methylphenol	Ave	1.446	1.391		77.0	80.0	-3.8	20.0
3-Methylphenol	Ave	1.446	1.391		77.0	80.0	-3.8	20.0
4-Methylphenol	Ave	1.446	1.391	0.6000	77.0	80.0	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.029	0.9805	0.5000	76.2	80.0	-4.7	20.0
Acetophenone	Ave	1.960	1.956	0.0100	79.8	80.0	-0.2	20.0
Hexachloroethane	Ave	0.6598	0.6895	0.3000	83.6	80.0	4.5	20.0
Nitrobenzene	Ave	0.3938	0.4018		81.6	80.0	2.0	20.0
Isophorone	Ave	0.7557	0.7480	0.4000	79.2	80.0	-1.0	20.0
2-Nitrophenol	Ave	0.2051	0.2182	0.1000	85.1	80.0	6.4	20.0
2,4-Dimethylphenol	Ave	0.3793	0.3794	0.2000	80.0	80.0	0.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4566	0.4672	0.3000	81.9	80.0	2.3	20.0
Benzoic acid	Lin2		0.2817		158	160	-1.2	20.0
2,4-Dichlorophenol	Ave	0.3066	0.3139	0.2000	81.9	80.0	2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3212	0.3308		82.4	80.0	3.0	20.0
Naphthalene	Ave	1.094	1.094	0.7000	80.0	80.0	-0.0	20.0
4-Chloroaniline	Ave	0.5201	0.5252	0.0100	80.8	80.0	1.0	20.0
2,6-Dichlorophenol	Ave	0.3025	0.3102		82.1	80.0	2.6	20.0
Hexachlorobutadiene	Ave	0.1680	0.1664	0.0100	79.2	80.0	-1.0	20.0
Caprolactam	Ave	0.2016	0.1931		76.6	80.0	-4.3	20.0
4-Chloro-3-methylphenol	Ave	0.3246	0.3241	0.2000	79.9	80.0	-0.1	20.0
2-Methylnaphthalene	Ave	0.7398	0.7193	0.4000	77.8	80.0	-2.8	20.0
1-Methylnaphthalene	Ave	0.6490	0.6308		77.8	80.0	-2.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2934	0.2865	0.0100	78.1	80.0	-2.3	20.0
Hexachlorocyclopentadiene	Ave	0.3410	0.3722	0.0500	87.3	80.0	9.1	20.0
2,4,6-Trichlorophenol	Ave	0.3576	0.3911	0.2000	87.5	80.0	9.4	20.0
2,4,5-Trichlorophenol	Ave	0.3900	0.4222	0.2000	86.6	80.0	8.2	20.0
1,1'-Biphenyl	Ave	1.531	1.570		82.0	80.0	2.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: CCV 280-302954/3 Calibration Date: 11/06/2015 17:46

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20926.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.161	1.218	0.8000	83.9	80.0	4.9	20.0
2-Nitroaniline	Ave	0.4133	0.4223	0.0100	81.7	80.0	2.2	20.0
Dimethyl phthalate	Ave	1.376	1.330	0.0100	77.3	80.0	-3.4	20.0
1,3-Dinitrobenzene	Ave	0.2431	0.2618		86.1	80.0	7.7	20.0
2,6-Dinitrotoluene	Ave	0.3193	0.3357	0.2000	84.1	80.0	5.1	20.0
Acenaphthylene	Ave	1.990	2.031	0.9000	81.7	80.0	2.1	20.0
3-Nitroaniline	Ave	0.4128	0.4220	0.0100	81.8	80.0	2.2	20.0
Acenaphthene	Ave	1.198	1.210	0.9000	80.8	80.0	1.0	20.0
2,4-Dinitrophenol	Ave	0.2108	0.2108	0.0100	160	160	0.0	20.0
4-Nitrophenol	Ave	0.2044	0.2136	0.0100	167	160	4.5	20.0
2,4-Dinitrotoluene	Ave	0.4272	0.4394	0.2000	82.3	80.0	2.8	20.0
Dibenzofuran	Ave	1.738	1.731	0.8000	79.7	80.0	-0.4	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3094	0.3281	0.0100	84.8	80.0	6.0	20.0
Diethyl phthalate	Ave	1.391	1.412	0.0100	81.2	80.0	1.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6212	0.6119	0.4000	78.8	80.0	-1.5	20.0
4-Nitroaniline	Ave	0.4139	0.4082	0.0100	78.9	80.0	-1.4	20.0
Fluorene	Ave	1.397	1.359	0.9000	77.9	80.0	-2.7	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1444	0.1599	0.0100	177	160	10.7	20.0
N-Nitrosodiphenylamine	Ave	0.5976	0.6219	0.0100	166	160	4.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.455	1.451		80.7	80.9	-0.3	20.0
Azobenzene	Ave	1.471	1.467		79.8	80.0	-0.3	20.0
4-Bromophenyl phenyl ether	Ave	0.1958	0.2068	0.1000	84.5	80.0	5.6	20.0
Hexachlorobenzene	Ave	0.1995	0.2148	0.1000	86.1	80.0	7.7	20.0
Pentachlorophenol	Ave	0.1206	0.1297	0.0500	172	160	7.5	20.0
Phenanthrene	Ave	1.177	1.194	0.7000	81.1	80.0	1.4	20.0
Anthracene	Ave	1.186	1.212	0.7000	81.8	80.0	2.2	20.0
Carbazole	Ave	1.202	1.208	0.0100	80.5	80.0	0.6	20.0
Di-n-butyl phthalate	Ave	1.434	1.470	0.0100	82.0	80.0	2.5	20.0
Fluoranthene	Ave	1.277	1.246	0.6000	78.0	80.0	-2.5	20.0
Pyrene	Ave	1.473	1.598	0.6000	86.8	80.0	8.5	20.0
Famphur	Ave	0.4711	0.4995		84.8	80.0	6.0	20.0
Butyl benzyl phthalate	Ave	0.7283	0.8001	0.0100	87.9	80.0	9.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3800	0.4180	0.0100	88.0	80.0	10.0	20.0
Benzo[a]anthracene	Ave	1.282	1.325	0.8000	82.7	80.0	3.4	20.0
Chrysene	Ave	1.252	1.284	0.7000	82.1	80.0	2.6	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9584	1.048	0.0100	87.5	80.0	9.4	20.0
Di-n-octyl phthalate	Ave	1.638	1.750	0.0100	85.5	80.0	6.8	20.0
Benzo[b]fluoranthene	Ave	1.252	1.297	0.7000	82.8	80.0	3.6	20.0
Benzo[k]fluoranthene	Ave	1.297	1.401	0.7000	86.4	80.0	8.1	20.0
Benzo[a]pyrene	Ave	1.249	1.338	0.7000	85.7	80.0	7.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Lab Sample ID: CCV 280-302954/3 Calibration Date: 11/06/2015 17:46

Instrument ID: SMS_G6 Calib Start Date: 10/13/2015 11:23

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 10/13/2015 14:24

Lab File ID: G6_20926.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Indeno[1,2,3-cd]pyrene	Ave	0.9141	0.8904	0.5000	77.9	80.0	-2.6	20.0
Dibenz(a,h)anthracene	Ave	0.9731	1.026	0.4000	84.3	80.0	5.4	20.0
Benzo[g,h,i]perylene	Ave	1.117	1.162	0.5000	83.3	80.0	4.1	20.0
2-Fluorophenol (Surr)	Ave	1.445	1.422		78.7	80.0	-1.6	20.0
Phenol-d5 (Surr)	Ave	1.813	1.818		80.2	80.0	0.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4170	0.4251		81.6	80.0	2.0	20.0
2-Fluorobiphenyl	Ave	1.368	1.404		82.1	80.0	2.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1471	0.1538		83.6	80.0	4.6	20.0
Terphenyl-d14 (Surr)	Ave	0.8660	0.9311		86.0	80.0	7.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20926.D
Lims ID: CCV HSL
Client ID:
Sample Type: CCV
Inject. Date: 06-Nov-2015 17:46:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: CCV HSL
Operator ID: HOEFLERA Instrument ID: SMS_G6
Sublist: chrom-SMS_G6_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 09-Nov-2015 13:01:47 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: hoeflera Date: 06-Nov-2015 18:35:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.604	4.604	0.000	96	168740	40.0	40.0	
* 2 Naphthalene-d8	136	5.840	5.840	0.000	100	625277	40.0	40.0	
* 3 Acenaphthene-d10	164	7.587	7.587	0.000	92	326629	40.0	40.0	
* 4 Phenanthrene-d10	188	9.075	9.075	0.000	97	524222	40.0	40.0	
* 5 Chrysene-d12	240	13.086	13.086	0.000	97	419617	40.0	40.0	
* 6 Perylene-d12	264	16.980	16.980	0.000	95	355374	40.0	40.0	
$ 7 2-Fluorophenol	112	3.399	3.399	0.000	93	480012	80.0	78.7	
$ 8 Phenol-d5	99	4.234	4.234	0.000	99	613386	80.0	80.2	
$ 9 Nitrobenzene-d5	82	5.122	5.122	0.000	92	531634	80.0	81.6	
$ 10 2-Fluorobiphenyl	172	6.898	6.898	0.000	100	917151	80.0	82.1	
$ 11 2,4,6-Tribromophenol	330	8.375	8.375	0.000	85	100481	80.0	83.6	
$ 12 Terphenyl-d14	244	10.998	10.998	0.000	98	781405	80.0	86.0	
13 1,4-Dioxane	88	1.957	1.957	0.000	97	202591	80.0	79.9	
14 N-Nitrosodimethylamine	74	2.199	2.199	0.000	92	301578	80.0	77.9	
15 Pyridine	79	2.252	2.252	0.000	93	530424	80.0	77.3	
23 Phenol	94	4.251	4.251	0.000	99	628858	80.0	81.4	
24 Aniline	93	4.287	4.287	0.000	98	781953	80.0	80.6	
25 Bis(2-chloroethyl)ether	93	4.328	4.328	0.000	96	498755	80.0	81.1	
26 2-Chlorophenol	128	4.410	4.410	0.000	97	511126	80.0	80.5	
27 1,3-Dichlorobenzene	146	4.557	4.557	0.000	97	517980	80.0	79.4	
28 1,4-Dichlorobenzene	146	4.622	4.622	0.000	94	528190	80.0	80.4	
29 Benzyl alcohol	108	4.716	4.716	0.000	93	326246	80.0	79.1	
30 1,2-Dichlorobenzene	146	4.775	4.775	0.000	97	514080	80.0	81.7	
31 2-Methylphenol	108	4.822	4.822	0.000	94	455279	80.0	78.9	
32 2,2'-oxybis[1-chloropropan	45	4.851	4.851	0.000	93	660099	80.0	76.3	
38 3 & 4 Methylphenol	108	4.969	4.969	0.000	91	469501	80.0	77.0	
39 3-Methylphenol	108	4.969	4.969	0.000	91	469501	80.0	77.0	
40 4-Methylphenol	108	4.969	4.969	0.000	94	469501	80.0	77.0	
41 N-Nitrosodi-n-propylamine	70	4.969	4.969	0.000	91	330893	80.0	76.2	
42 Acetophenone	105	4.975	4.975	0.000	94	659954	80.0	79.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.104	5.104	0.000	98	232681	80.0	83.6	
44 Nitrobenzene	77	5.146	5.146	0.000	89	502424	80.0	81.6	
46 Isophorone	82	5.369	5.369	0.000	99	935435	80.0	79.2	
48 2-Nitrophenol	139	5.457	5.457	0.000	95	272893	80.0	85.1	
49 2,4-Dimethylphenol	107	5.481	5.481	0.000	95	474420	80.0	80.0	
50 Bis(2-chloroethoxy)methane	93	5.569	5.569	0.000	98	584288	80.0	81.9	
52 Benzoic acid	105	5.598	5.598	0.000	90	704579	160.0	158.0	
53 2,4-Dichlorophenol	162	5.693	5.693	0.000	96	392548	80.0	81.9	
54 1,2,4-Trichlorobenzene	180	5.781	5.781	0.000	94	413686	80.0	82.4	
55 2,6-Dichlorophenol	162	5.916	5.916	0.000	97	387969	80.0	82.1	
57 Naphthalene	128	5.863	5.863	0.000	97	1367788	80.0	80.0	
58 4-Chloroaniline	127	5.898	5.898	0.000	97	656838	80.0	80.8	
59 Hexachlorobutadiene	225	5.987	5.987	0.000	98	208142	80.0	79.2	
62 Caprolactam	55	6.222	6.222	0.000	78	241452	80.0	76.6	
64 4-Chloro-3-methylphenol	107	6.375	6.375	0.000	96	405321	80.0	79.9	
65 2-Methylnaphthalene	142	6.545	6.545	0.000	93	899456	80.0	77.8	
67 1-Methylnaphthalene	142	6.645	6.645	0.000	94	788817	80.0	77.8	
68 Hexachlorocyclopentadiene	237	6.716	6.716	0.000	96	243135	80.0	87.3	
69 1,2,4,5-Tetrachlorobenzene	216	6.716	6.716	0.000	98	358332	80.0	78.1	
70 2,4,6-Trichlorophenol	196	6.822	6.822	0.000	94	255454	80.0	87.5	
72 2,4,5-Trichlorophenol	196	6.857	6.857	0.000	94	275798	80.0	86.6	
74 1,1'-Biphenyl	154	7.004	7.004	0.000	95	1025771	80.0	82.0	
75 2-Chloronaphthalene	162	7.028	7.028	0.000	97	795571	80.0	83.9	
77 2-Nitroaniline	65	7.110	7.110	0.000	86	275890	80.0	81.7	
79 Dimethyl phthalate	163	7.287	7.287	0.000	98	868905	80.0	77.3	
80 1,3-Dinitrobenzene	168	7.316	7.316	0.000	86	171048	80.0	86.1	
81 2,6-Dinitrotoluene	165	7.345	7.345	0.000	96	219327	80.0	84.1	
82 Acenaphthylene	152	7.445	7.445	0.000	98	1327007	80.0	81.7	
83 3-Nitroaniline	138	7.522	7.522	0.000	96	275698	80.0	81.8	
84 Acenaphthene	153	7.622	7.622	0.000	91	790173	80.0	80.8	
86 2,4-Dinitrophenol	184	7.628	7.628	0.000	84	275354	160.0	160.0	
87 4-Nitrophenol	109	7.687	7.687	0.000	93	279094	160.0	167.2	
89 2,4-Dinitrotoluene	165	7.757	7.757	0.000	93	287039	80.0	82.3	
90 Dibenzofuran	168	7.792	7.792	0.000	97	1130613	80.0	79.7	
92 2,3,4,6-Tetrachlorophenol	232	7.916	7.916	0.000	76	214333	80.0	84.8	
94 Diethyl phthalate	149	7.992	7.992	0.000	98	922101	80.0	81.2	
96 4-Chlorophenyl phenyl ethe	204	8.122	8.122	0.000	94	399730	80.0	78.8	
98 Fluorene	166	8.134	8.134	0.000	95	887913	80.0	77.9	
99 4-Nitroaniline	138	8.134	8.134	0.000	87	266635	80.0	78.9	
100 4,6-Dinitro-2-methylphenol	198	8.175	8.175	0.000	82	335200	160.0	177.1	
102 N-Nitrosodiphenylamine	169	8.239	8.239	0.000	62	1303979	160.0	166.5	
103 Azobenzene	77	8.281	8.281	0.000	99	958355	80.0	79.8	
104 1,2-Diphenylhydrazine	77	8.281	8.281	0.000	99	958355	80.9	80.7	
111 4-Bromophenyl phenyl ether	248	8.610	8.610	0.000	70	216817	80.0	84.5	
112 Hexachlorobenzene	284	8.704	8.704	0.000	92	225196	80.0	86.1	
116 Pentachlorophenol	266	8.892	8.892	0.000	88	271995	160.0	172.1	
119 Phenanthrene	178	9.098	9.098	0.000	98	1251509	80.0	81.1	
120 Anthracene	178	9.151	9.151	0.000	98	1270610	80.0	81.8	
122 Carbazole	167	9.304	9.304	0.000	95	1266918	80.0	80.5	
123 Di-n-butyl phthalate	149	9.639	9.639	0.000	100	1540777	80.0	82.0	
128 Fluoranthene	202	10.451	10.451	0.000	98	1305911	80.0	78.0	
131 Pyrene	202	10.780	10.780	0.000	97	1340691	80.0	86.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218	11.751	11.751	0.000	98	419164	80.0	84.8	
137 Butyl benzyl phthalate	149	11.869	11.869	0.000	97	671434	80.0	87.9	
140 3,3'-Dichlorobenzidine	252	13.016	13.016	0.000	75	350830	80.0	88.0	
141 Benzo[a]anthracene	228	13.063	13.063	0.000	99	1111824	80.0	82.7	
142 Bis(2-ethylhexyl) phthalat	149	13.227	13.227	0.000	97	879760	80.0	87.5	
143 Chrysene	228	13.151	13.151	0.000	98	1077874	80.0	82.1	
144 Di-n-octyl phthalate	149	15.010	15.010	0.000	99	1468720	80.0	85.5	
146 Benzo[b]fluoranthene	252	15.898	15.898	0.000	99	921714	80.0	82.8	
147 Benzo[k]fluoranthene	252	15.974	15.974	0.000	98	995928	80.0	86.4	
148 Benzo[a]pyrene	252	16.821	16.821	0.000	80	951304	80.0	85.7	
151 Indeno[1,2,3-cd]pyrene	276	20.086	20.086	0.000	96	747236	80.0	77.9	
152 Dibenz(a,h)anthracene	278	20.174	20.174	0.000	95	728953	80.0	84.3	
153 Benzo[g,h,i]perylene	276	20.815	20.815	0.000	94	826222	80.0	83.3	

Reagents:

MS-HSLACCV080_00050 Amount Added: 200.00 Units: uL

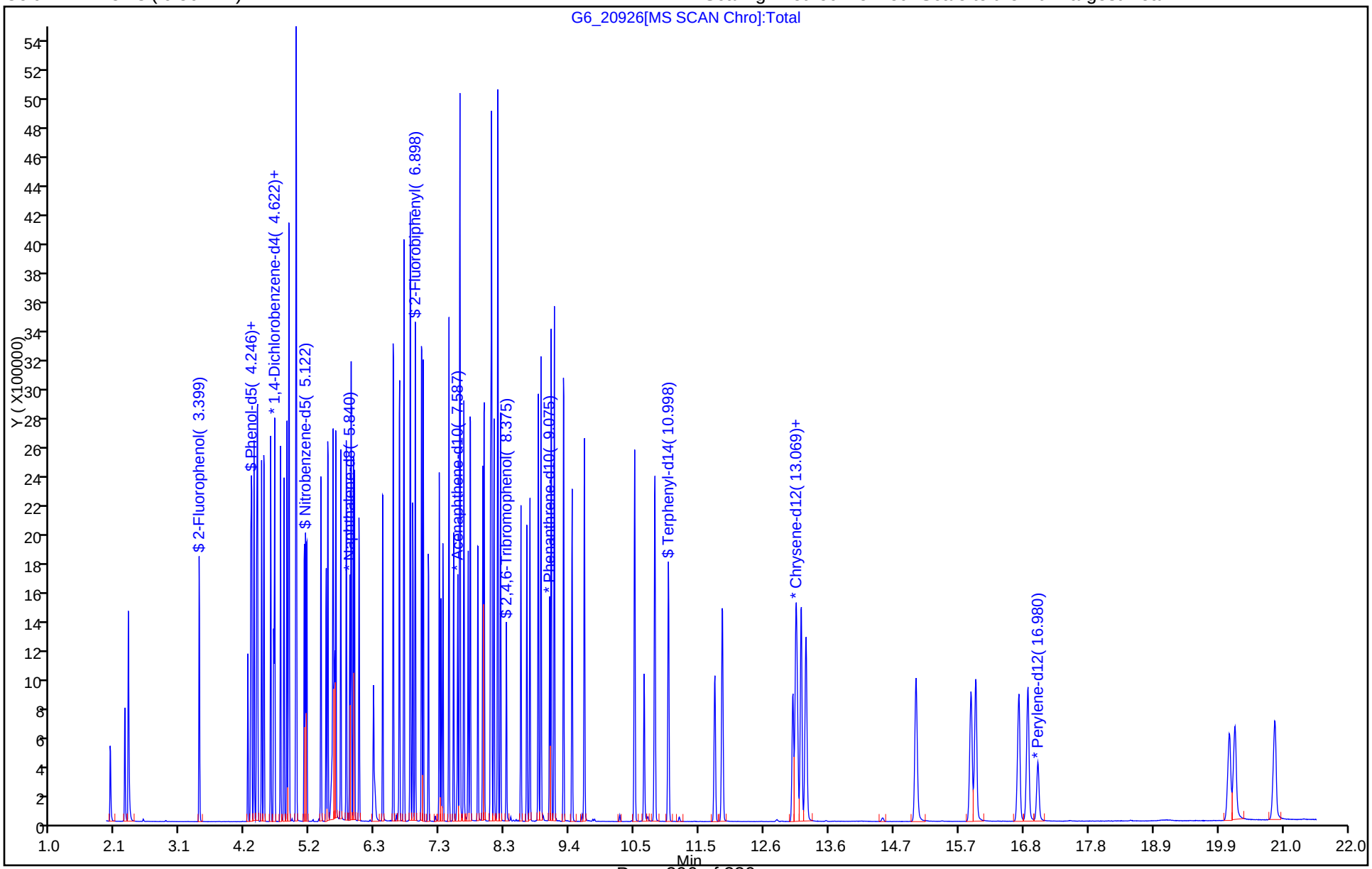
Report Date: 09-Nov-2015 13:01:48 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20926.D

Injection Date:	06-Nov-2015 17:46:30	Instrument ID:	SMS_G6	Operator ID:	HOEFLERA
Lims ID:	CCV HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20496.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 13-Oct-2015 11:11:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: KIEKELD Instrument ID: SMS_G6

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 23-Oct-2015 07:32:40 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: kiekeld Date: 23-Oct-2015 06:24:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
20 Pentachlorophenol_T	266	3.863	3.863	0.000	88	93786	NR	NR	
35 Benzidine_T	184	5.063	5.063	0.000	100	730347	NR	NR	
156 DFTPP									
157 4,4'-DDE	246	5.228	5.228	0.000	1	224	NR	NR	
158 4,4'-DDD	235	5.563	5.563	0.000	65	5709	NR	NR	
159 4,4'-DDT	235	5.804	5.804	0.000	97	268800	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

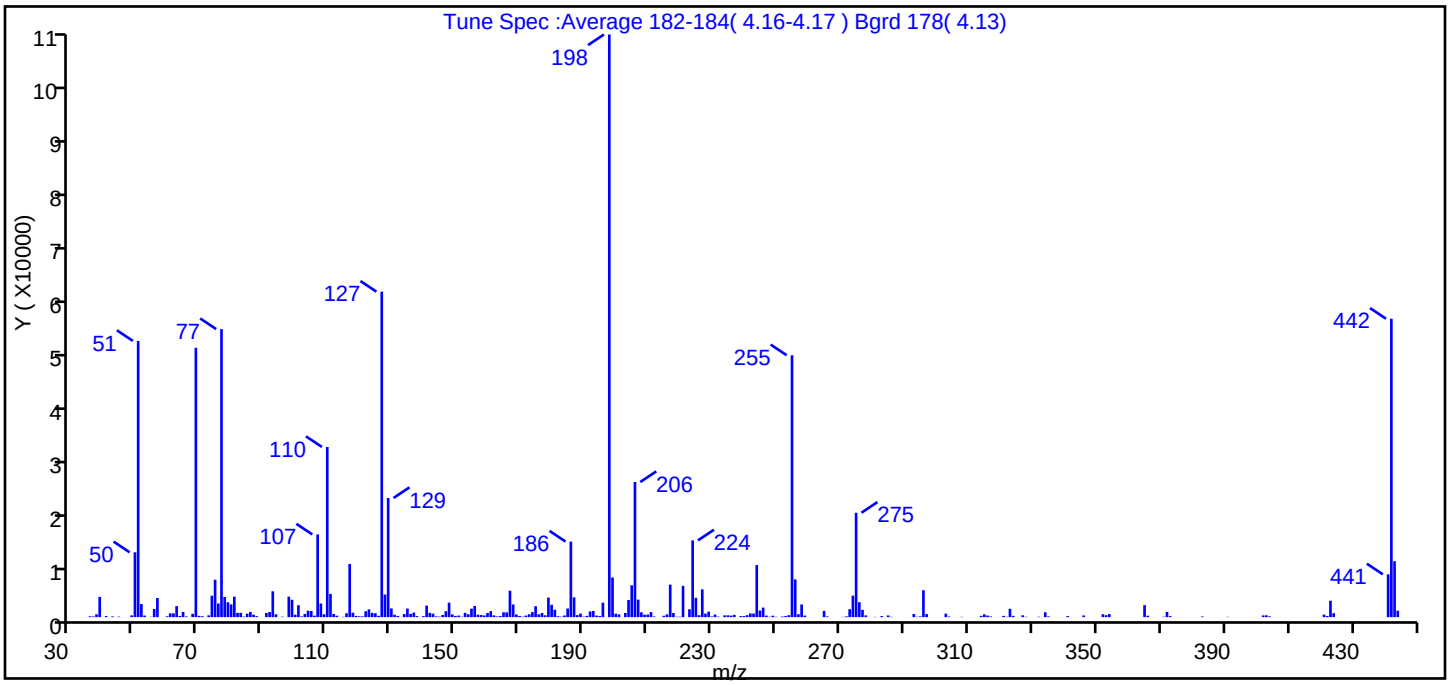
MS-DFTPP_00040 Amount Added: 200.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20496.D
Injection Date: 13-Oct-2015 11:11:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: KIEKELD ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	47.4
68	<2% of mass 69	0.6 (1.3)
69	Present	46.2
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	55.9
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	17.9
365	>1% of mass 198	2.1
441	Present but less than mass 443	7.3 (76.6)
442	>40% of mass 198	51.2
443	17-23% of mass 442	9.6 (18.7)

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20496.D\SMS_G6_8270D.rslt\spectra.d
Injection Date: 13-Oct-2015 11:11:30
Spectrum: Tune Spec :Average 182-184(4.16-4.17) Bgrd 178(4.13)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	155	116.00	680	183.00	78	256.00	6625
37.00	124	117.00	9343	184.00	296	257.00	503
38.00	497	118.00	780	185.00	1524	258.00	2234
39.00	3555	119.00	217	186.00	13275	259.00	275
41.00	196	120.00	146	187.00	3474	265.00	1089
43.00	126	121.00	132	188.00	354	266.00	128
45.00	92	122.00	1037	189.00	630	271.00	52
49.00	311	123.00	1371	190.00	81	272.00	142
50.00	11389	124.00	750	191.00	224	273.00	1395
51.00	48520	125.00	687	192.00	1001	274.00	3776
52.00	2296	126.00	235	193.00	1083	275.00	18336
53.00	278	127.00	57168	194.00	277	276.00	2619
55.00	64	128.00	3977	195.00	211	277.00	1282
56.00	1436	129.00	20928	196.00	2543	278.00	312
57.00	3357	130.00	1525	198.00	102344	281.00	51
58.00	10	131.00	418	199.00	6963	283.00	196
60.00	147	132.00	206	200.00	599	285.00	298
61.00	667	134.00	540	201.00	473	286.00	57
62.00	663	135.00	1517	203.00	735	293.00	543
63.00	1934	136.00	578	204.00	3009	294.00	64
64.00	219	137.00	798	205.00	5594	295.00	126
65.00	917	138.00	183	206.00	23736	296.00	4725
66.00	125	140.00	177	207.00	3077	297.00	542
68.00	596	141.00	2025	208.00	848	303.00	613
69.00	47312	142.00	755	209.00	421	304.00	108
70.00	228	143.00	607	210.00	454	308.00	55
71.00	162	144.00	137	211.00	884	314.00	235
73.00	316	145.00	97	212.00	112	315.00	497
74.00	3774	146.00	376	215.00	241	316.00	276
75.00	6579	147.00	1039	216.00	479	317.00	123
76.00	2397	148.00	2549	217.00	5713	321.00	231
77.00	50592	149.00	484	218.00	720	322.00	60
78.00	3531	150.00	217	219.00	71	323.00	1471

Report Date: 23-Oct-2015 07:32:41 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20496.D\SMS_G6_8270D.rslt\spectra.d
Injection Date: 13-Oct-2015 11:11:30
Spectrum: Tune Spec :Average 182-184(4.16-4.17) Bgrd 178(4.13)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	2619	151.00	279	220.00	79	324.00	229
80.00	2243	152.00	75	221.00	5493	327.00	323
81.00	3595	153.00	752	223.00	1387	328.00	62
82.00	741	154.00	494	224.00	13484	332.00	74
83.00	758	155.00	1494	225.00	3394	334.00	858
84.00	94	156.00	1969	226.00	340	335.00	134
85.00	607	157.00	430	227.00	4876	341.00	188
86.00	926	158.00	372	228.00	626	346.00	296
87.00	436	159.00	300	229.00	961	352.00	508
88.00	168	160.00	718	230.00	123	353.00	346
91.00	736	161.00	1058	231.00	458	354.00	537
92.00	898	162.00	311	232.00	87	365.00	2106
93.00	4540	163.00	128	234.00	317	366.00	252
94.00	496	164.00	187	235.00	326	371.00	71
96.00	83	165.00	857	236.00	272	372.00	917
98.00	3597	166.00	839	237.00	397	373.00	181
99.00	3050	167.00	4639	239.00	189	383.00	126
100.00	428	168.00	2227	240.00	191	391.00	53
101.00	2097	169.00	483	241.00	343	402.00	308
102.00	125	170.00	208	242.00	654	403.00	327
103.00	565	171.00	79	243.00	624	404.00	148
104.00	1126	172.00	279	244.00	9149	421.00	443
105.00	1074	173.00	502	245.00	1159	422.00	201
106.00	262	174.00	888	246.00	1677	423.00	2881
107.00	14523	175.00	1924	247.00	275	424.00	695
108.00	2392	176.00	492	248.00	64	441.00	7522
109.00	504	177.00	724	249.00	250	442.00	52416
110.00	29888	178.00	325	250.00	70	443.00	9824
111.00	4082	179.00	3433	252.00	109	444.00	1133
112.00	560	180.00	2163	253.00	191		
113.00	251	181.00	1308	254.00	344		
115.00	58	182.00	162	255.00	46000		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20925.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 06-Nov-2015 17:37:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: HOEFLERA Instrument ID: SMS_G6

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 09-Nov-2015 13:01:42 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: hoeflera Date: 06-Nov-2015 17:43:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
20 Pentachlorophenol_T	266	3.752	3.752	0.000	88	150945	NR	NR	
35 Benzidine_T	184	4.846	4.846	0.000	100	1151808	NR	NR	
156 DFTPP									
157 4,4'-DDE	246	4.993	4.993	0.000	86	555	NR	NR	
158 4,4'-DDD	235	5.281	5.281	0.000	95	10124	NR	NR	
159 4,4'-DDT	235	5.499	5.499	0.000	97	458011	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

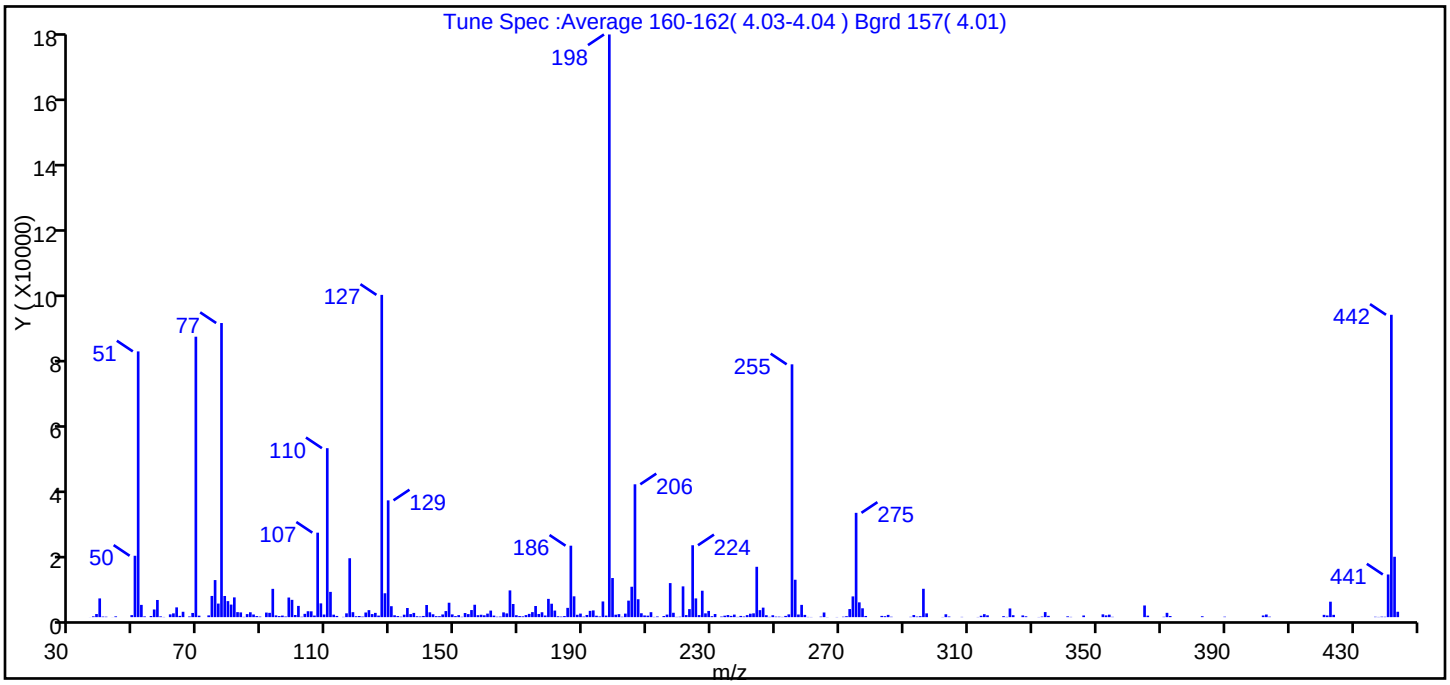
MS-DFTPP_00040 Amount Added: 200.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20925.D
Injection Date: 06-Nov-2015 17:37:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: HOEFLERA ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_G6_8270D Limit Group: MSSV - 8270D
Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	45.6
68	<2% of mass 69	0.7 (1.5)
69	Present	48.1
70	<2% of mass 69	0.3 (0.5)
127	40-60% of mass 198	55.3
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.7
275	10-30% of mass 198	17.9
365	>1% of mass 198	2.0
441	Present but less than mass 443	7.3 (70.7)
442	>40% of mass 198	51.9
443	17-23% of mass 442	10.4 (20.0)

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20925.D\SMS_G6_8270D.rslt\spectra.d
Injection Date: 06-Nov-2015 17:37:30
Spectrum: Tune Spec :Average 160-162(4.03-4.04) Bgrd 157(4.01)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 281

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	19	119.00	269	190.00	171	265.00	1427
37.00	247	120.00	350	191.00	668	266.00	41
38.00	952	121.00	170	192.00	1929	269.00	50
39.00	5751	122.00	1425	193.00	2070	271.00	134
40.00	180	123.00	2148	194.00	438	272.00	289
41.00	141	124.00	941	195.00	211	273.00	2482
43.00	16	125.00	1310	196.00	4818	274.00	6370
44.00	244	126.00	472	197.00	467	275.00	32024
49.00	612	127.00	98936	198.00	178880	276.00	4541
50.00	18840	128.00	7330	199.00	12005	277.00	2720
51.00	81584	129.00	35856	200.00	753	278.00	364
52.00	3763	130.00	3360	201.00	920	283.00	386
53.00	226	131.00	571	202.00	121	284.00	286
55.00	346	132.00	336	203.00	1083	285.00	695
56.00	2352	133.00	133	204.00	5068	286.00	122
57.00	5269	134.00	753	205.00	9332	292.00	94
58.00	234	135.00	2806	206.00	40784	293.00	645
59.00	58	136.00	943	207.00	5501	294.00	170
61.00	853	137.00	1301	208.00	1194	295.00	284
62.00	1164	138.00	265	209.00	525	296.00	8707
63.00	2999	139.00	190	210.00	458	297.00	1160
64.00	391	140.00	367	211.00	1521	302.00	53
65.00	1650	141.00	3727	212.00	70	303.00	881
67.00	209	142.00	1486	213.00	209	304.00	186
68.00	1288	143.00	884	215.00	340	308.00	78
69.00	86096	144.00	299	216.00	781	313.00	53
70.00	454	145.00	298	217.00	10453	314.00	427
73.00	537	146.00	825	218.00	1343	315.00	914
74.00	6507	147.00	1864	219.00	84	316.00	554
75.00	11381	148.00	4425	220.00	132	321.00	297
76.00	4163	149.00	843	221.00	9445	322.00	77
77.00	90296	150.00	316	222.00	629	323.00	2672
78.00	6492	151.00	614	223.00	2469	324.00	589

Report Date: 09-Nov-2015 13:01:43 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20925.D\SMS_G6_8270D.rslt\spectra.d
Injection Date: 06-Nov-2015 17:37:30
Spectrum: Tune Spec :Average 160-162(4.03-4.04) Bgrd 157(4.01)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 281

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	4920	152.00	109	224.00	22072	327.00	528
80.00	3858	153.00	1267	225.00	5751	328.00	256
81.00	6067	154.00	931	226.00	627	332.00	51
82.00	1539	155.00	2179	227.00	8109	333.00	171
83.00	1454	156.00	3803	228.00	1166	334.00	1553
84.00	87	157.00	602	229.00	1906	335.00	397
85.00	933	158.00	733	230.00	289	341.00	251
86.00	1499	159.00	566	231.00	960	342.00	77
87.00	813	160.00	1084	233.00	184	346.00	505
88.00	327	161.00	2012	234.00	448	352.00	862
89.00	173	162.00	475	235.00	645	353.00	538
91.00	1405	163.00	130	236.00	388	354.00	763
92.00	1324	164.00	172	237.00	782	355.00	98
93.00	8687	165.00	1462	238.00	79	365.00	3585
94.00	533	166.00	1153	239.00	379	366.00	455
95.00	333	167.00	8210	240.00	190	371.00	112
96.00	478	168.00	4032	241.00	617	372.00	1324
97.00	189	169.00	592	242.00	1049	373.00	345
98.00	6023	170.00	333	243.00	1170	383.00	276
99.00	5309	171.00	244	244.00	15459	390.00	140
100.00	656	172.00	625	245.00	2149	402.00	513
101.00	3450	173.00	999	246.00	2922	403.00	804
102.00	118	174.00	1544	247.00	592	404.00	150
103.00	1012	175.00	3420	248.00	86	421.00	702
104.00	1818	176.00	973	249.00	583	422.00	516
105.00	1786	177.00	1505	250.00	153	423.00	4742
106.00	482	178.00	500	251.00	150	424.00	704
107.00	25936	179.00	5608	252.00	71	437.00	116
108.00	4228	180.00	4119	253.00	380	438.00	66
109.00	802	181.00	2018	254.00	852	439.00	149
110.00	51872	182.00	272	255.00	77616	440.00	113
111.00	7756	183.00	166	256.00	11480	441.00	13097
112.00	761	184.00	330	257.00	808	442.00	92824
113.00	370	185.00	2848	258.00	3765	443.00	18536

Report Date: 09-Nov-2015 13:01:43 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20925.D\SMS_G6_8270D.rslt\spectra.d
Injection Date: 06-Nov-2015 17:37:30
Spectrum: Tune Spec :Average 160-162(4.03-4.04) Bgrd 157(4.01)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 281

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	83	186.00	21936	259.00	694	444.00	1654
116.00	1172	187.00	6391	260.00	69		
117.00	18088	188.00	730	261.00	52		
118.00	1526	189.00	1089	264.00	161		

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76048-2

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-302918/1-A

Matrix: Water | Lab File ID: G6_20932.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3520C | Date Extracted: 10/29/2015 17:15

Sample wt/vol: 1000(mL) | Date Analyzed: 11/06/2015 19:55

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 302954 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	85		42-131
321-60-8	2-Fluorobiphenyl	78		48-120
367-12-4	2-Fluorophenol (Surr)	83		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	84		42-120
4165-62-2	Phenol-d5 (Surr)	84		45-124
1718-51-0	Terphenyl-d14 (Surr)	80		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20932.D
Lims ID: MB 280-302918/1-A
Client ID:
Sample Type: MB
Inject. Date: 06-Nov-2015 19:55:30 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: MB280-302918_1-A
Operator ID: HOEFLERA Instrument ID: SMS_G6

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 09-Nov-2015 13:01:47 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: kiekeld Date: 09-Nov-2015 12:43:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.604	4.604	0.000	96	183906	40.0	40.0	
* 2 Naphthalene-d8	136	5.834	5.840	-0.006	100	691881	40.0	40.0	
* 3 Acenaphthene-d10	164	7.581	7.587	-0.006	92	393216	40.0	40.0	
* 4 Phenanthrene-d10	188	9.069	9.075	-0.006	97	681703	40.0	40.0	
* 5 Chrysene-d12	240	13.074	13.086	-0.012	98	581104	40.0	40.0	
* 6 Perylene-d12	264	16.962	16.980	-0.018	96	476985	40.0	40.0	
$ 7 2-Fluorophenol	112	3.404	3.399	0.005	92	549277	100.0	82.7	
$ 8 Phenol-d5	99	4.234	4.234	0.000	99	702461	100.0	84.3	
$ 9 Nitrobenzene-d5	82	5.122	5.122	0.000	90	603050	100.0	83.6	
$ 10 2-Fluorobiphenyl	172	6.898	6.898	0.000	100	1046466	100.0	77.8	
$ 11 2,4,6-Tribromophenol	330	8.369	8.375	-0.006	85	122917	100.0	85.0	
$ 12 Terphenyl-d14	244	10.992	10.998	-0.006	99	1011829	100.0	80.4	
13 1,4-Dioxane	88		1.957					ND	
14 N-Nitrosodimethylamine	74		2.199					ND	
15 Pyridine	79		2.252					ND	
16 2-Picoline	93		3.004					ND	
17 N-Nitrosomethylethylamine	88		3.093					ND	
18 Methyl methanesulfonate	80		3.369					ND	
19 N-Nitrosodiethylamine	102		3.722					ND	
20 Pentachlorophenol_T	266		3.752					ND	
21 Ethyl methanesulfonate	79		3.987					ND	
22 Pentachloroethane	117		4.463					ND	
23 Phenol	94		4.251					ND	
24 Aniline	93		4.287					ND	
25 Bis(2-chloroethyl)ether	93		4.328					ND	
26 2-Chlorophenol	128		4.410					ND	
27 1,3-Dichlorobenzene	146		4.557					ND	
28 1,4-Dichlorobenzene	146		4.622					ND	
29 Benzyl alcohol	108		4.716					ND	
30 1,2-Dichlorobenzene	146		4.775					ND	
31 2-Methylphenol	108		4.822					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 2,2'-oxybis[1-chloropropan	45		4.851					ND	
33 N-Nitrosopyrrolidine	100		5.092					ND	
34 N-Nitrosomorpholine	116		5.122					ND	
35 Benzidine_T	184		4.846					ND	
36 2-Toluidine	106		5.140					ND	
37 Benzaldehyde	106		5.015					ND	
38 3 & 4 Methylphenol	108		4.969					ND	
39 3-Methylphenol	108		4.969					ND	
40 4-Methylphenol	108		4.969					ND	
41 N-Nitrosodi-n-propylamine	70		4.969					ND	
42 Acetophenone	105		4.975					ND	
43 Hexachloroethane	117		5.104					ND	
44 Nitrobenzene	77		5.146					ND	
45 N-Nitrosopiperidine	114		5.428					ND	
46 Isophorone	82		5.369					ND	
47 o,o',o''-Triethylphosphoro	198		5.634					ND	
48 2-Nitrophenol	139		5.457					ND	
49 2,4-Dimethylphenol	107		5.481					ND	
50 Bis(2-chloroethoxy)methane	93		5.569					ND	
51 alpha,alpha-Dimethyl phene	58		5.822					ND	
52 Benzoic acid	105		5.598					ND	
53 2,4-Dichlorophenol	162		5.693					ND	
54 1,2,4-Trichlorobenzene	180		5.781					ND	
55 2,6-Dichlorophenol	162		5.916					ND	
56 Hexachloropropene	213		6.063					ND	
57 Naphthalene	128		5.863					ND	
58 4-Chloroaniline	127		5.898					ND	
59 Hexachlorobutadiene	225		5.987					ND	
60 N-Nitrosodi-n-butylamine	84		6.328					ND	
61 p-Phenylene diamine	108		6.381					ND	
62 Caprolactam	55		6.222					ND	
63 Safrole, Total	162		6.557					ND	
64 4-Chloro-3-methylphenol	107		6.375					ND	
65 2-Methylnaphthalene	142		6.545					ND	
66 Isosafrole Peak 1	162		6.851					ND	
67 1-Methylnaphthalene	142		6.645					ND	
68 Hexachlorocyclopentadiene	237		6.716					ND	
69 1,2,4,5-Tetrachlorobenzene	216		6.716					ND	
70 2,4,6-Trichlorophenol	196		6.822					ND	
71 Isosafrole Peak 2	104		7.075					ND	
72 2,4,5-Trichlorophenol	196		6.857					ND	
73 1-Chloronaphthalene	162		7.186					ND	
74 1,1'-Biphenyl	154		7.004					ND	
75 2-Chloronaphthalene	162		7.028					ND	
76 1,4-Naphthoquinone	158		7.339					ND	
77 2-Nitroaniline	65		7.110					ND	
78 1,4-Dinitrobenzene	168		7.398					ND	
79 Dimethyl phthalate	163	7.281	7.287	-0.006	97	3592		0.2655	
80 1,3-Dinitrobenzene	168		7.316					ND	
81 2,6-Dinitrotoluene	165		7.345					ND	
82 Acenaphthylene	152		7.445					ND	
83 3-Nitroaniline	138		7.522					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Acenaphthene	153		7.622					ND	
85 Pentachlorobenzene	250		7.881					ND	
86 2,4-Dinitrophenol	184		7.628					ND	
87 4-Nitrophenol	109		7.687					ND	
88 1-Naphthylamine	143		8.010					ND	
89 2,4-Dinitrotoluene	165		7.757					ND	
90 Dibenzofuran	168		7.792					ND	
91 2-Naphthylamine	143		8.086					ND	
92 2,3,4,6-Tetrachlorophenol	232		7.916					ND	
93 Thionazin	97		8.186					ND	
94 Diethyl phthalate	149		7.992					ND	
95 N-Nitro-o-toluidine	152		8.281					ND	
96 4-Chlorophenyl phenyl ethe	204		8.122					ND	
97 Diphenylamine	169		8.369					ND	
98 Fluorene	166		8.134					ND	
99 4-Nitroaniline	138		8.134					ND	
100 4,6-Dinitro-2-methylphenol	198		8.175					ND	
101 Sulfotepp	97		8.469					ND	
102 N-Nitrosodiphenylamine	169		8.239					ND	
103 Azobenzene	77		8.281					ND	
104 1,2-Diphenylhydrazine	77		8.281					ND	
105 Diallate Peak 1	86	8.669	8.622	0.047	1	207			NC
106 1,3,5-Trinitrobenzene	213		8.633					ND	
107 Phorate	121		8.639					ND	
108 Phenacetin	108		8.663					ND	
109 Diallate Peak 2	86		8.722					ND	
110 Dimethoate	87		8.833					ND	
111 4-Bromophenyl phenyl ether	248		8.610					ND	
112 Hexachlorobenzene	284		8.704					ND	
113 4-Aminobiphenyl	169		9.016					ND	
114 Pentachloronitrobenzene	237		9.028					ND	
115 Pronamide	173		9.028					ND	
116 Pentachlorophenol	266		8.892					ND	
117 Disulfoton	88		9.163					ND	
118 Dinoseb	211		9.169					ND	
119 Phenanthrene	178		9.098					ND	
120 Anthracene	178		9.151					ND	
121 Methyl parathion	109		9.569					ND	
122 Carbazole	167		9.304					ND	
123 Di-n-butyl phthalate	149		9.639					ND	
124 Ethyl Parathion	109		9.998					ND	
125 4-Nitroquinoline-1-oxide	190		10.127					ND	
126 Methapyrilene	97		10.145					ND	
127 Isodrin	193		10.457					ND	
128 Fluoranthene	202		10.451					ND	
129 Benzidine	184		10.466					ND	
130 Aramite Peak 1	185	10.992	11.163	-0.171	46	2727			NC
131 Pyrene	202		10.780					ND	
132 Aramite Peak 2	185		11.298					ND	
133 p-Dimethylamino azobenzene	120		11.516					ND	
134 Chlorobenzilate	251		11.569					ND	
135 3,3'-Dimethylbenzidine	212		12.210					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Famphur	218		11.751					ND	
137 Butyl benzyl phthalate	149		11.869					ND	
138 2-Acetylaminofluorene	181		12.774					ND	
139 4,4'-Methylene bis(2-chlor	231		13.492					ND	
140 3,3'-Dichlorobenzidine	252		13.016					ND	
141 Benzo[a]anthracene	228		13.063					ND	
142 Bis(2-ethylhexyl) phthalat	149		13.227					ND	
143 Chrysene	228		13.151					ND	
144 Di-n-octyl phthalate	149		15.010					ND	
145 7,12-Dimethylbenz(a)anthra	256		16.527					ND	
146 Benzo[b]fluoranthene	252		15.898					ND	
147 Benzo[k]fluoranthene	252		15.974					ND	
148 Benzo[a]pyrene	252		16.821					ND	
149 3-Methylcholanthrene	268		18.597					ND	
150 Dibenz[a,j]acridine	279		20.403					ND	
151 Indeno[1,2,3-cd]pyrene	276		20.086					ND	
152 Dibenz(a,h)anthracene	278		20.174					ND	
153 Benzo[g,h,i]perylene	276		20.815					ND	
S 160 Aramite, Total	185		15.047					ND	
S 161 Isosafrole	162		15.047					ND	
S 162 Diallate	86		15.047					ND	
154 Total Cresols	1		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDE	246		4.993					ND	
158 4,4'-DDD	235		5.281					ND	
159 4,4'-DDT	235		5.499					ND	
S 163 Methyl Phenols,Total	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

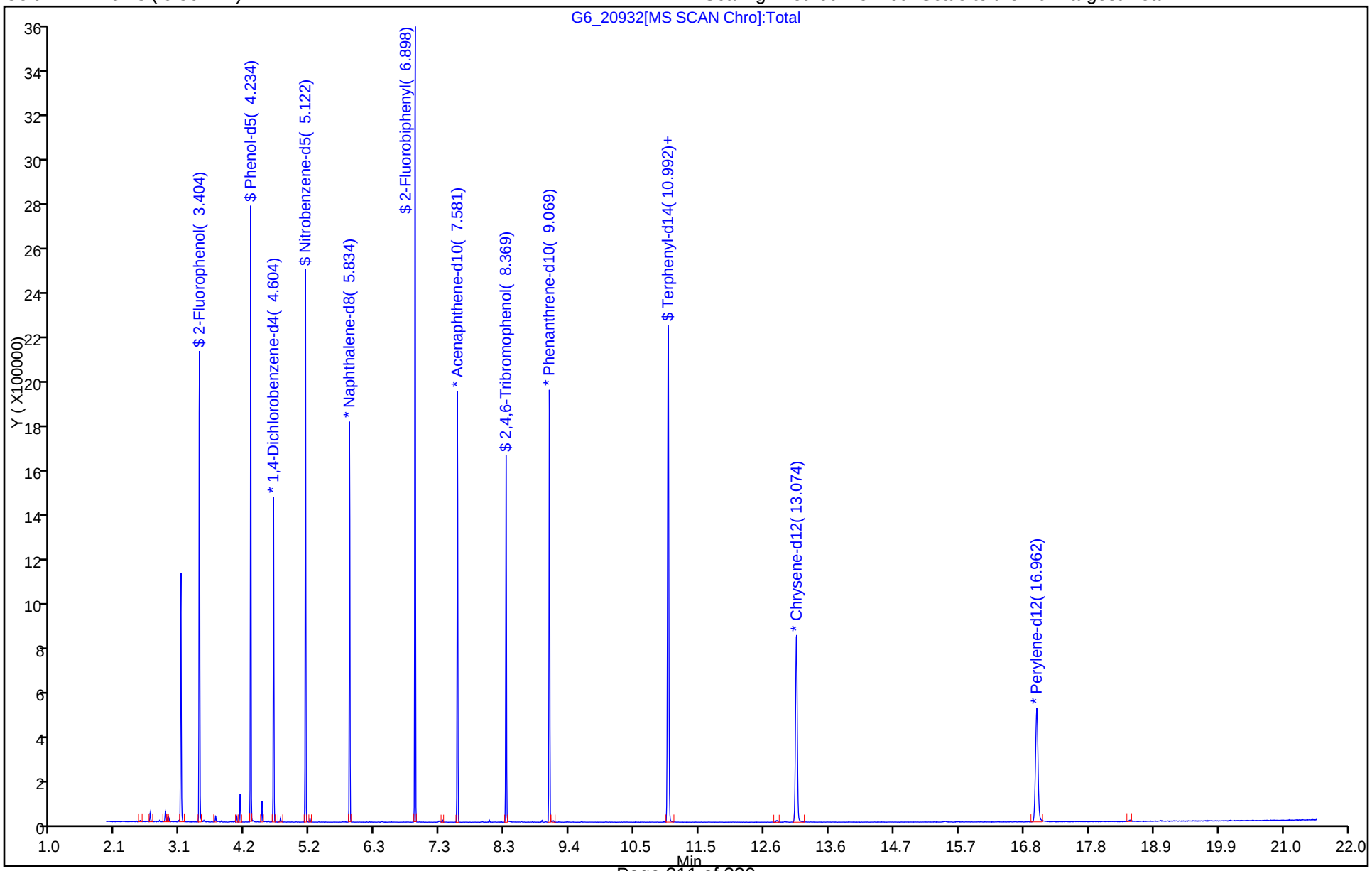
Report Date: 09-Nov-2015 13:02:06 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20932.D

Injection Date:	06-Nov-2015 19:55:30	Instrument ID:	SMS_G6	Operator ID:	HOEFLERA
Lims ID:	MB 280-302918/1-A			Worklist Smp#:	19
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76048-2

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-302918/2-A

Matrix: Water | Lab File ID: G6_20931.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3520C | Date Extracted: 10/29/2015 17:15

Sample wt/vol: 1000(mL) | Date Analyzed: 11/06/2015 19:29

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 302954 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	70.7		5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	89		42-131
321-60-8	2-Fluorobiphenyl	81		48-120
367-12-4	2-Fluorophenol (Surr)	80		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	84		42-120
4165-62-2	Phenol-d5 (Surr)	82		45-124
1718-51-0	Terphenyl-d14 (Surr)	81		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20931.D
Lims ID: LCS 280-302918/2-A
Client ID:
Sample Type: LCS
Inject. Date: 06-Nov-2015 19:29:30 ALS Bottle#: 6 Worklist Smp#: 20
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: LCS280-302918_2-A
Operator ID: HOEFLERA Instrument ID: SMS_G6

Method: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\SMS_G6_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 09-Nov-2015 13:01:47 Calib Date: 13-Oct-2015 14:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_G6\20151023-40676.b\G6_20504.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK025

First Level Reviewer: kiekeld Date: 09-Nov-2015 12:42:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.604	4.604	0.000	96	169035	40.0	40.0	
* 2 Naphthalene-d8	136	5.839	5.840	-0.001	100	630610	40.0	40.0	
* 3 Acenaphthene-d10	164	7.586	7.587	-0.001	93	335180	40.0	40.0	
* 4 Phenanthrene-d10	188	9.075	9.075	0.000	97	546794	40.0	40.0	
* 5 Chrysene-d12	240	13.080	13.086	-0.006	97	441638	40.0	40.0	
* 6 Perylene-d12	264	16.968	16.980	-0.012	95	375400	40.0	40.0	
$ 7 2-Fluorophenol	112	3.404	3.399	0.005	92	486286	100.0	79.6	
$ 8 Phenol-d5	99	4.240	4.234	0.006	99	629220	100.0	82.1	
$ 9 Nitrobenzene-d5	82	5.122	5.122	0.000	91	554963	100.0	84.4	
$ 10 2-Fluorobiphenyl	172	6.898	6.898	0.000	99	931068	100.0	81.2	
$ 11 2,4,6-Tribromophenol	330	8.375	8.375	0.000	88	110005	100.0	89.2	
$ 12 Terphenyl-d14	244	10.998	10.998	0.000	99	774215	100.0	81.0	
13 1,4-Dioxane	88	1.957	1.957	0.000	98	159960	80.0	63.0	
14 N-Nitrosodimethylamine	74	2.199	2.199	-0.001	93	276571	80.0	71.3	
15 Pyridine	79	2.251	2.252	-0.001	92	414976	80.0	60.4	
23 Phenol	94	4.251	4.251	0.000	99	551703	80.0	71.3	
24 Aniline	93	4.287	4.287	0.000	98	557950	80.0	57.4	
25 Bis(2-chloroethyl)ether	93	4.328	4.328	0.000	95	440384	80.0	71.5	
26 2-Chlorophenol	128	4.410	4.410	0.000	97	454237	80.0	71.4	
27 1,3-Dichlorobenzene	146	4.557	4.557	0.000	97	295764	80.0	45.2	
28 1,4-Dichlorobenzene	146	4.622	4.622	0.000	94	310071	80.0	47.1	
29 Benzyl alcohol	108	4.716	4.716	0.000	94	297882	80.0	72.1	
30 1,2-Dichlorobenzene	146	4.769	4.775	-0.006	97	307540	80.0	48.8	
31 2-Methylphenol	108	4.822	4.822	0.000	93	407366	80.0	70.5	
32 2,2'-oxybis[1-chloropropan	45	4.845	4.851	-0.006	93	572490	80.0	66.0	
37 Benzaldehyde	106	4.975	5.015	-0.040	73	47584	NC	NC	
38 3 & 4 Methylphenol	108	4.969	4.969	0.000	91	412594	80.0	67.5	
39 3-Methylphenol	108	4.969	4.969	0.000	91	412594	80.0	67.5	
40 4-Methylphenol	108	4.969	4.969	0.000	94	412594	80.0	67.5	
41 N-Nitrosodi-n-propylamine	70	4.969	4.969	0.000	89	298615	80.0	68.7	
42 Acetophenone	105	4.975	4.975	0.000	95	575299	80.0	69.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
43 Hexachloroethane	117	5.098	5.104	-0.006	96	119568	80.0	42.9	
44 Nitrobenzene	77	5.139	5.146	-0.007	90	447171	80.0	72.0	
46 Isophorone	82	5.369	5.369	0.000	99	802157	80.0	67.3	
48 2-Nitrophenol	139	5.457	5.457	0.000	94	236801	80.0	73.2	
49 2,4-Dimethylphenol	107	5.481	5.481	0.000	95	370495	80.0	62.0	
50 Bis(2-chloroethoxy)methane	93	5.569	5.569	0.000	99	524797	80.0	72.9	
52 Benzoic acid	105	5.563	5.598	-0.035	89	279041	80.0	65.2	
53 2,4-Dichlorophenol	162	5.692	5.693	-0.001	95	346481	80.0	71.7	
54 1,2,4-Trichlorobenzene	180	5.781	5.781	0.000	94	270033	80.0	53.3	
55 2,6-Dichlorophenol	162	5.910	5.916	-0.006	96	341391	80.0	71.6	
57 Naphthalene	128	5.857	5.863	-0.006	97	1042688	80.0	60.4	
58 4-Chloroaniline	127	5.892	5.898	-0.006	97	425088	80.0	51.8	
59 Hexachlorobutadiene	225	5.986	5.987	-0.001	98	122000	80.0	46.1	
62 Caprolactam	55	6.216	6.222	-0.006	78	224835	80.0	70.7	
64 4-Chloro-3-methylphenol	107	6.369	6.375	-0.006	96	360818	80.0	70.5	
65 2-Methylnaphthalene	142	6.539	6.545	-0.006	93	720685	80.0	61.8	
67 1-Methylnaphthalene	142	6.639	6.645	-0.006	94	663800	80.0	64.9	
68 Hexachlorocyclopentadiene	237	6.710	6.716	-0.006	97	54663	80.0	19.1	
69 1,2,4,5-Tetrachlorobenzene	216	6.716	6.716	0.000	98	294241	80.0	63.6	
70 2,4,6-Trichlorophenol	196	6.822	6.822	0.000	94	237417	80.0	79.2	
72 2,4,5-Trichlorophenol	196	6.857	6.857	0.000	93	248261	80.0	76.0	
74 1,1'-Biphenyl	154	6.998	7.004	-0.006	95	878069	80.0	68.4	
75 2-Chloronaphthalene	162	7.028	7.028	0.000	96	673150	80.0	69.2	
77 2-Nitroaniline	65	7.110	7.110	0.000	85	257532	80.0	74.4	
79 Dimethyl phthalate	163	7.286	7.287	-0.001	98	807489	80.0	70.0	
80 1,3-Dinitrobenzene	168	7.316	7.316	0.000	84	153091	80.0	75.1	
81 2,6-Dinitrotoluene	165	7.345	7.345	0.000	95	197500	80.0	73.8	
82 Acenaphthylene	152	7.445	7.445	0.000	99	1151568	80.0	69.1	
83 3-Nitroaniline	138	7.516	7.522	-0.006	95	198922	80.0	57.5	
84 Acenaphthene	153	7.616	7.622	-0.006	92	692490	80.0	69.0	
86 2,4-Dinitrophenol	184	7.622	7.628	-0.006	81	247577	160.0	140.2	
87 4-Nitrophenol	109	7.686	7.687	0.000	91	255037	160.0	148.9	
89 2,4-Dinitrotoluene	165	7.751	7.757	-0.006	92	259476	80.0	72.5	
90 Dibenzofuran	168	7.786	7.792	-0.006	97	1019188	80.0	70.0	
92 2,3,4,6-Tetrachlorophenol	232	7.910	7.916	-0.006	76	195035	80.0	75.2	
94 Diethyl phthalate	149	7.992	7.992	0.000	98	866951	80.0	74.4	
96 4-Chlorophenyl phenyl ethe	204	8.116	8.122	-0.006	96	361368	80.0	69.4	
98 Fluorene	166	8.133	8.134	-0.001	95	801698	80.0	68.5	
99 4-Nitroaniline	138	8.133	8.134	-0.001	64	233503	80.0	67.3	
100 4,6-Dinitro-2-methylphenol	198	8.175	8.175	0.000	84	296540	160.0	150.2	
102 N-Nitrosodiphenylamine	169	8.233	8.239	-0.006	62	1158996	160.0	141.9	
103 Azobenzene	77	8.280	8.281	-0.001	100	875794	80.0	71.1	
104 1,2-Diphenylhydrazine	77	8.280	8.281	-0.001	100	875794	80.9	71.8	
111 4-Bromophenyl phenyl ether	248	8.610	8.610	0.000	71	195831	80.0	73.2	
112 Hexachlorobenzene	284	8.704	8.704	0.000	92	202296	80.0	74.2	
116 Pentachlorophenol	266	8.892	8.892	0.000	90	230101	160.0	139.5	
119 Phenanthrene	178	9.098	9.098	0.000	98	1131197	80.0	70.3	
120 Anthracene	178	9.151	9.151	0.000	98	1138035	80.0	70.2	
122 Carbazole	167	9.298	9.304	-0.006	95	1148684	80.0	69.9	
123 Di-n-butyl phthalate	149	9.633	9.639	-0.006	100	1382944	80.0	70.6	
128 Fluoranthene	202	10.451	10.451	0.000	98	1178452	80.0	67.5	
129 Benzidine	184	10.604	10.466	0.138	100	278958	NC	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
131 Pyrene	202	10.774	10.780	-0.006	97	1231127	80.0	75.7	
137 Butyl benzyl phthalate	149	11.868	11.869	-0.001	97	594085	80.0	73.9	
140 3,3'-Dichlorobenzidine	252	13.010	13.016	-0.006	75	268174	80.0	63.9	
141 Benzo[a]anthracene	228	13.057	13.063	-0.006	99	1003866	80.0	70.9	
142 Bis(2-ethylhexyl) phthalat	149	13.221	13.227	-0.006	97	793349	80.0	75.0	
143 Chrysene	228	13.145	13.151	-0.006	98	966258	80.0	69.9	
144 Di-n-octyl phthalate	149	14.998	15.010	-0.012	99	1321736	80.0	73.1	
146 Benzo[b]fluoranthene	252	15.892	15.898	-0.006	99	837502	80.0	71.3	
147 Benzo[k]fluoranthene	252	15.968	15.974	-0.006	98	881247	80.0	72.4	
148 Benzo[a]pyrene	252	16.803	16.821	-0.018	80	821259	80.0	70.0	
151 Indeno[1,2,3-cd]pyrene	276	20.074	20.086	-0.012	96	674099	80.0	66.8	
152 Dibenz(a,h)anthracene	278	20.162	20.174	-0.012	95	664732	80.0	72.8	
153 Benzo[g,h,i]perylene	276	20.809	20.815	-0.006	94	734539	80.0	70.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

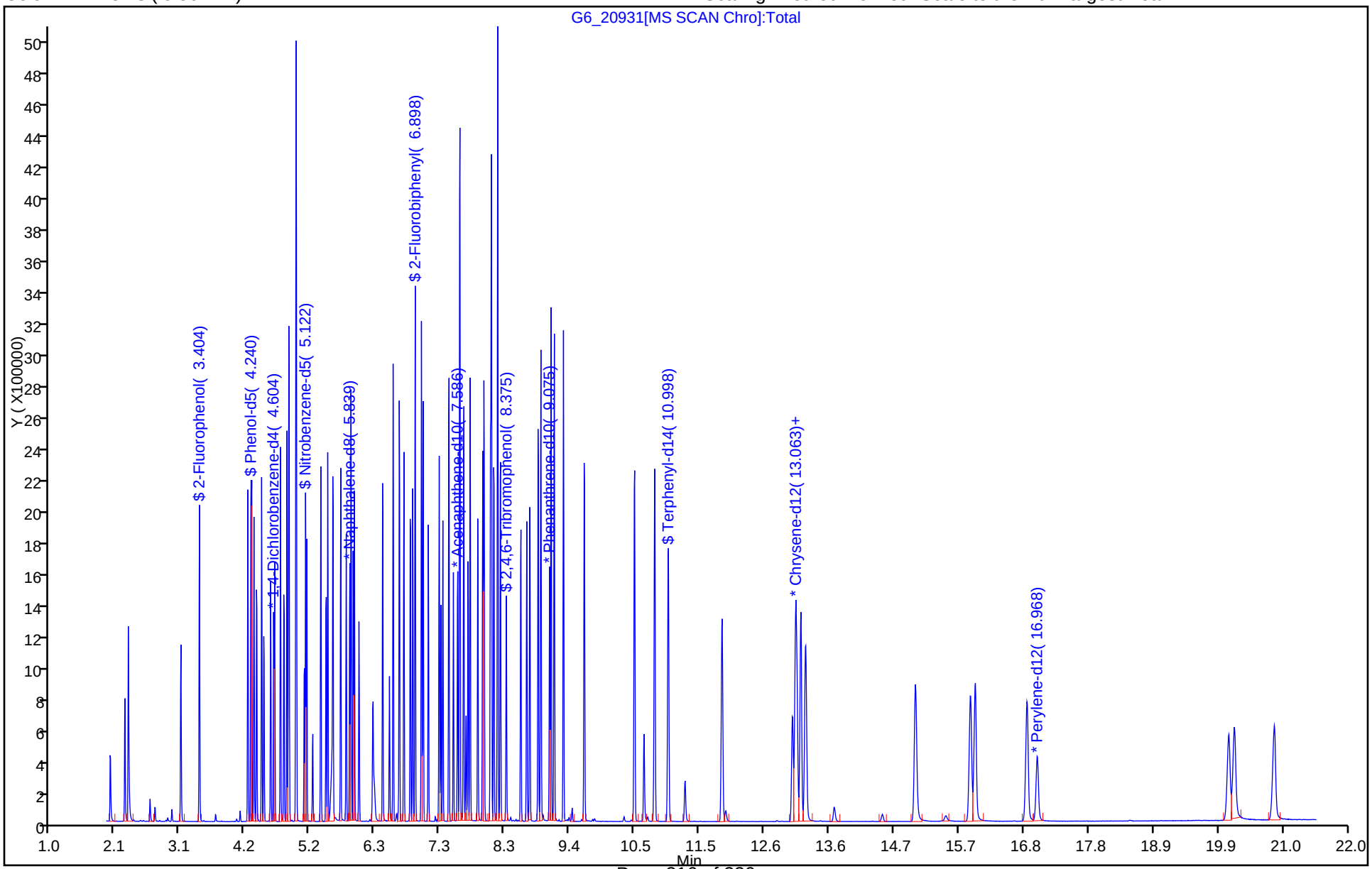
Report Date: 09-Nov-2015 13:02:03 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_G6\20151106-41221.b\G6_20931.D

Injection Date:	06-Nov-2015 19:29:30	Instrument ID:	SMS_G6	Operator ID:	HOEFLERA
Lims ID:	LCS 280-302918/2-A			Worklist Smp#:	20
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	SMS_G6_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Instrument ID: SMS_G6 Start Date: 10/13/2015 11:11

Analysis Batch Number: 300666 End Date: 10/13/2015 15:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-300666/2		10/13/2015 11:11	1	G6_20496.D	Vf-5MS (30.25) 0.25(mm)
ICIS 280-300666/3		10/13/2015 11:23	1	G6_20497.D	Vf-5MS (30.25) 0.25(mm)
STD004 280-300666/4 IC		10/13/2015 11:49	1	G6_20498.D	Vf-5MS (30.25) 0.25(mm)
STD010 280-300666/5 IC		10/13/2015 12:15	1	G6_20499.D	Vf-5MS (30.25) 0.25(mm)
STD020 280-300666/6 IC		10/13/2015 12:41	1	G6_20500.D	Vf-5MS (30.25) 0.25(mm)
STD050 280-300666/7 IC		10/13/2015 13:06	1	G6_20501.D	Vf-5MS (30.25) 0.25(mm)
STD120 280-300666/8 IC		10/13/2015 13:32	1	G6_20502.D	Vf-5MS (30.25) 0.25(mm)
STD160 280-300666/9 IC		10/13/2015 13:58	1	G6_20503.D	Vf-5MS (30.25) 0.25(mm)
STD200 280-300666/10 IC		10/13/2015 14:24	1	G6_20504.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-300666/11		10/13/2015 14:50	1	G6_20505.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-300666/12		10/13/2015 15:16	1	G6_20506.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-300666/13		10/13/2015 15:42	1	G6_20507.D	Vf-5MS (30.25) 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Instrument ID: SMS_G6 Start Date: 11/06/2015 17:37

Analysis Batch Number: 302954 End Date: 11/07/2015 03:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-302954/2		11/06/2015 17:37	1	G6_20925.D	Vf-5MS (30.25) 0.25(mm)
CCV 280-302954/3		11/06/2015 17:46	1	G6_20926.D	Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 18:12	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 18:38	1		Vf-5MS (30.25) 0.25(mm)
LCS 280-302918/2-A		11/06/2015 19:29	1	G6_20931.D	Vf-5MS (30.25) 0.25(mm)
MB 280-302918/1-A		11/06/2015 19:55	1	G6_20932.D	Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 20:20	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 20:46	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 21:11	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 21:37	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 22:02	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 22:28	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 22:53	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 23:19	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/06/2015 23:44	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 00:10	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 00:35	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 01:01	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 01:26	1		Vf-5MS (30.25) 0.25(mm)
280-76048-2	FW102015EQU001	11/07/2015 01:52	1	G6_20946.D	Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 02:17	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 02:43	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 03:08	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/07/2015 03:34	1		Vf-5MS (30.25) 0.25(mm)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ASL 11/06/15

GC/MS Semivolatile Data Review Checklist-CCV and Tune

LIMS Batch Number: 302954	Worklist #: 41221	Instrument ID: G6
Analyst/1st Reviewer: Alex Hopkins Date: 11/09/15	Method (circle): 625 8270C 8270D	Circle: Full Scan SIM BP LL SIM
QC Type (circle): Standard DOD Q4 DoD Q5 QAPP_____ Other_____		

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable? (List NCM #)
A. Tune/Calibration Verification					
1. Did DFTPP meet tune criteria? If SIM, did the PFTBA Tune check meet ion ratio criteria?	✓			✓	
2. Are the Benzidine and PCP tailing ≤ 2? (8270D/DoD), Benzidine tailing ≤3 and PCP tailing ≤5? (8270C)	✓			✓	
3. Is the DDT degradation ≤ 20%	✓			✓	
4. Were all standards injected within 12 hr of DFTPP? (or 24 hrs for 625)?	✓			✓	
5. Was the correct ICAL used for quantitation? Date & instrument ID verified? (Check both Chrom and TALS)	✓			✓	
6. Do the RFs meet method minimum criteria? (8270D/625) Are the RFs for SPCCs ≥0.050? (8270C)	✓			✓	
7. Is the %D (difference or drift) **8270C**: ≤20% for all CCCs? all other analytes within 35%, or 55% (poor performers) **8270D**: %D ≤ 20% for all analytes, at least 80% of compounds meet criteria?	✓			✓	(8270C: %D high, samples ND?) (8270D: <20% of cmpds fail criteria & for failed cmpds RL std verifies sensitivity for NDs?) List Compounds outside criteria:
8. For any compound > 20% D (low), was RL standard analyzed and detected? (8270D)			—	N/A	
9. NOTE: For any compounds > 20% D (high or low), detects will be flagged as "EST" & narrated. (8270D)			—	1	□ Must be done in consultation with client.
10. Are the internal standard responses within limits? (between -50% and +100% of the mid-level ICAL standard)	✓			✓	
11. Are the internal standard retention times within method limits? (±30 sec of ICAL mid pt for 8270C/D)	✓			✓	
12. Benzo(b & k)fluoranthene: height of the valley between must be less than 50% of the average of the two peak heights?	✓			✓	
13. Elution order checked Isomeric pairs and coeluters?					(Chrom: View/Documents/Methods/Isomers)
• aniline / bis(2-chloroethyl)ether	✓			✓	
• N-nitrosodiphenylamine/diphenylamine			—	N/A	
• 1,3- , 1,4- , 1,2-dichlorobenzene	✓			✓	
• benzyl alcohol / 2-methylphenol / 3/4-methylphenol	✓			✓	
• 2 & 1 – methylnaphthalene	✓			✓	
• 2,4-dimethylphenol / 3,5-dimethylphenol	✓			✓	
• 2,4,6- and 2,4,5-trichlorophenol	✓			✓	
• phenanthrene / anthracene	✓			✓	

Phuriya S.
11/10/2015

A. Tune/Calibration Verification (cont.)					
Review Items	**Yes**	**No**	**NA**	**2nd Rev**	**If No, why is data reportable? (List NCM #)**
• fluoranthene / pyrene	✓			✓	
• benzo(a)anthracene / chrysene	✓			✓	
• benzo(e)pyrene/benzo(a)pyrene	✓			✓	
• bis(2-ethylhexyl)/di-n-octyl phthalate	✓			✓	
• benzo(b)fluoranthene / benzo(k)fluoranthene	✓			✓	
• indeno(1,2,3-cd)pyrene / benzo(g,h,i)perylene	✓			✓	
• safrole/1-chloronaphthalene			✓	N/A	
• 1-/2-naphthylamine			✓		
• 1 and 2-chloronaphthalene			✓		
• 2,4,6 and 2,4,5-tribromophenol			✓		
14. If any criteria from items above were not met, was a NCM generated?			✓	✓	
15. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given) 2nd review of all MIs required	✓			✓	

Comments:

2nd Reviewer: _____ **Review Date:** 110915

ATH 11/09/15

Phuriya S. 11/10/2015

Alex Hoffer
11/09/15

Injection Log

Directory: C:\HPCHEM\1\DATA\G6\110615.B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	G6_20924.D	1.	PRIMER		6 Nov 2015 17:12
2	1	G6_20925.D	1.	DFTPP		6 Nov 2015 17:37
3	2	G6_20926.D	1.	CCV HSL		6 Nov 2015 17:46
4	3	G6_20927.D	1.	MB280-301114_1-A		6 Nov 2015 18:12
5	100	G6_20928.D	1.	primer		6 Nov 2015 15:52
6	4	G6_20929.D	1.	LCS280-301114_2-A		6 Nov 2015 18:38
7	5	G6_20930.D	1.	MB280-302918_1-A		6 Nov 2015 19:03
8	6	G6_20931.D	1.	LCS280-302918_2-A		6 Nov 2015 19:29
9	7	G6_20932.D	1.	MB280-302918_1-A		6 Nov 2015 19:55
10	8	G6_20933.D	1.	280-75703-B-6-A		6 Nov 2015 20:20
11	9	G6_20934.D	1.	280-75703-C-5-A		6 Nov 2015 20:46
12	10	G6_20935.D	1.	280-75703-C-4-A		6 Nov 2015 21:11
13	11	G6_20936.D	1.	280-75838-B-4-A		6 Nov 2015 21:37
14	12	G6_20937.D	1.	280-75838-A-5-A		6 Nov 2015 22:02
15	13	G6_20938.D	1.	280-75838-A-6-A		6 Nov 2015 22:28
16	14	G6_20939.D	1.	280-75838-B-8-A		6 Nov 2015 22:53
17	15	G6_20940.D	1.	280-75838-A-10-A		6 Nov 2015 23:19
18	16	G6_20941.D	1.	280-75838-B-11-A		6 Nov 2015 23:44
19	17	G6_20942.D	1.	280-75838-C-11-AMS		7 Nov 2015 00:10
20	18	G6_20943.D	1.	280-75838-D-11-AMSD		7 Nov 2015 00:35
21	19	G6_20944.D	1.	280-75838-A-12-A		7 Nov 2015 01:01
22	20	G6_20945.D	1.	280-75838-A-13-A		7 Nov 2015 01:26
23	21	G6_20946.D	1.	280-76048-D-2-B		7 Nov 2015 01:52
24	22	G6_20947.D	1.	280-76114-A-3-B		7 Nov 2015 02:17
25	23	G6_20948.D	1.	280-76114-B-4-B		7 Nov 2015 02:43
26	24	G6_20949.D	1.	280-76114-D-5-B		7 Nov 2015 03:08
27	25	G6_20950.D	1.	280-76114-A-6-B		7 Nov 2015 03:34
28	98	G6_20951.D	1.	RINSE		7 Nov 2015 03:59
29	99	G6_20952.D	1.	RINSE		7 Nov 2015 04:25
30	100	G6_20953.D	1.	RINSE		7 Nov 2015 04:50
31	98	G6_20954.D	1.	RINSE		7 Nov 2015 05:16
32	99	G6_20955.D	1.	RINSE		7 Nov 2015 05:41
33	100	G6_20956.D	1.	RINSE		7 Nov 2015 06:07

Dilution Solvent Lot #: 108136 **Pipette ID:** SV-20/SV-23 **Method(s) Performed:** 8270D

Phuriya S. 11/10/2015

Daily Maintenance: Check box if maintenance was performed. No mark indicates the item was not changed.

Changed Septum ☑ **Changed Liner** ☑ **Changed Seal** ☑ **Changed Ferrule** ☑ **Clipped Column** ☑

D.U.M 11

TestAmerica-*Denver*

G6-101315-HSL-8270D

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

GC/MS Semivolatile Initial Calibration Data Review Checklist

LIMS Batch Number: 300666	Worklist: 40676	ICIS/ICIV Line # 3	2nd Day ICV Line # N/A	Instrument ID: G6
Analyst/1st Reviewer: DOL Date: 102315	Method (circle): 625 8270C (8270D)		Circle: (Full Scan) SIM BP LLSIM	
QC Type (circle): Standard DOD Q4 DoD Q5 QAPP Other				DOL 102315

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune/Calibration Verification					
1. Did DFTPP meet tune criteria? If SIM, did the PFTBA Tune check meet ion ratio criteria?	✓			✓	
2. Are the Benzidine and PCP tailing ≤ 2? (8270D/DoD) Benzidine tailing ≤3 and PCP tailing ≤5? (8270C)	✓			✓	
3. Is the DDT degradation ≤ 20%	✓			✓	
4. Were all standards injected within 12 hr of DFTPP? (or 24 hrs for 625)?	✓			✓	
5. Were ≥ 5 levels of each compound and surrogate analyzed?	✓			✓	
6. At least 6 consecutive points used for quadratic curves?			✓	NA	
7. Was low level standard at or below RL?	✓			✓	
8. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)	✓			✓	(e.g.; some points <RL removed)
9. Does the low level standard have enough sensitivity to produce at least 5-10 scans across the peak, and all secondary ions are present?	✓			✓	
10. Do the average RFs meet minimum RF requirements? (625 – not method defined) (8270C-SPCCs ≥0.05) (8270D- all cmpds have min RFs defined in method/SOP)	✓			✓	
10. Did the calibration %RSD meet method requirements? (625: ≤35% all cmpds) (8270C: ≤30% for CCCs & ≤15% for all other cmpds/ surrogates) (8270D: ≤20% for all cmpds/surrogates)	✓			✓	
11. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?	✓			✓	
12. If regression fit used, r^2 ≥0.990?	✓			✓	
13. Does the low point of a linear regression fit meet the ±30% read-back criteria? (8270D)	✓			✓	
14. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005; recommended limits ±30% low point & ±20% all other points) (Chrom Report - Details of Calibration per Analyte)			✓	NA	
15. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)	✓			✓	
16. Were manual integrations performed correctly and properly documented (Dated, initialed and reason given) for all calibration points? 2nd review of all MIs required	✓			✓	
17. Was the high point checked for detector saturation?	✓			✓	
18. Do the relative retention times for each analyte in each standard agree within +/-0.06 units (abs RT +/-0.5 min)	✓			✓	
19. Benzo(b & k)fluoranthene: height of the valley between must be less than 50% of the average of the two peak heights?	✓			✓	

Phuriya 2
11/10/2015

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
20. Elution order checked Isomeric pairs and coeluters?					Chrom: View/Documents/Methods/Isomers)
• aniline / bis(2-chloroethyl)ether	✓			✓	
• N-nitrosodiphenylamine/diphenylamine			✓	✓	
• 1,3- , 1,4- , 1,2-dichlorobenzene	✓			✓	
• benzyl alcohol / 2-methylphenol / 3/4-methylphenol	✓			✓	
• 2,4-dimethylphenol / 3,5-dimethylphenol	✓			✓	
• 2 & 1 - methylnaphthalene	✓			✓	
• 2,4,6- and 2,4,5-trichlorophenol	✓			✓	
• phenanthrene / anthracene	✓			✓	
• fluoranthene / pyrene	✓			✓	
• benzo(a)anthracene / chrysene	✓			✓	
• bis(2-ethylhexyl)/di-n-octyl phthalate	✓			✓	
• benzo(b)fluoranthene / benzo(k)fluoranthene	✓			✓	
• Indeno(1,2,3-cd)pyrene / benzo(g,h,i)perylene	✓			✓	
• safrole/1-chloronaphthalene			✓	✓	
• 1-/2-naphthylamine			✓	✓	
• 1- and 2-chloronaphthalene			✓	✓	
• 2,4,6- and 2,4,5-tribromophenol			✓	✓	
• Benzo(e)pyrene / benzo(a)pyrene	✓			✓	
21. Was the ICV within required criteria? 625 = QCS method defined/Table6 8270C = ±35% or ±55% of expected for poor performers; 8270D = ±20%, poor performers <50% DoD = ±20% QAPP/Other _____	✓	✓		✓	
22. If any criteria from items above were not met, was NCM generated?			✓	NA	NCM #:
23. Were manual integrations for ICV performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)	✓	✓		✓	
24. Are all files and QC linked and processed correctly?	✓		✓	NA	☑ Files linked properly to calibration levels? ☑ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] ☑ Runs linked to DFTPP? [QC links] ☑ Checklist & run log scanned, attached & assigned properly?
25. Is the ICAL locked in TALS and Chrom?	✓	✓		✓	

Comments: _____

Dell 10236

2nd Reviewer: _____ **Review Date:** 10/23/15

Anuriya L
11/10/2015

Alex Hoffa
10/14/15

Injection Log

Directory: C:\HPCHEM\1\DATA\G6\101315.B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	G6_20494.D	1.	PRIMER		13 Oct 2015 10:10
2	1	G6_20495.D	1.	DFTPP		13 Oct 2015 10:36
3	1	G6_20496.D	1.	DFTPP		13 Oct 2015 11:11
4	2	G6_20497.D	1.	ICIS HSL		13 Oct 2015 11:23
5	3	G6_20498.D	1.	STD004 HSL		13 Oct 2015 11:49
6	4	G6_20499.D	1.	STD010 HSL		13 Oct 2015 12:15
7	5	G6_20500.D	1.	STD020 HSL		13 Oct 2015 12:41
8	6	G6_20501.D	1.	STD050 HSL		13 Oct 2015 13:06
9	7	G6_20502.D	1.	STD120 HSL		13 Oct 2015 13:32
10	8	G6_20503.D	1.	STD160 HSL		13 Oct 2015 13:58
11	9	G6_20504.D	1.	STD200 HSL		13 Oct 2015 14:24
12	10	G6_20505.D	1.	ICV HSL 1		13 Oct 2015 14:50
13	11	G6_20506.D	1.	ICV HSL 2		13 Oct 2015 15:16
14	12	G6_20507.D	1.	ICV FAM		13 Oct 2015 15:42
15	13	G6_20508.D	1.	STD080 AP9		13 Oct 2015 16:07
16	14	G6_20509.D	1.	STD010 AP9		13 Oct 2015 16:33
17	15	G6_20510.D	1.	STD020 AP9		13 Oct 2015 16:58
18	16	G6_20511.D	1.	STD050 AP9		13 Oct 2015 17:24
19	17	G6_20512.D	1.	STD120 AP9		13 Oct 2015 17:49
20	18	G6_20513.D	1.	STD160 AP9		13 Oct 2015 18:15
21	19	G6_20514.D	1.	STD200 AP9		13 Oct 2015 18:40
22	20	G6_20515.D	1.	ICV AP9 1		13 Oct 2015 19:06
23	21	G6_20516.D	1.	ICV AP9 2		13 Oct 2015 19:31
24	22	G6_20517.D	1.	ICV AP9 3		13 Oct 2015 19:56

Dilution Solvent Lot #: NA Pipette ID: NA Method(s) Performed: NA

Phuong S
11/10/2015

DailyMaintenance: Check box if maintenance was performed. No mark indicates the item was not changed.

Charged Septum ☑ Changed Liner ☑ Changed Seal ☑ Changed Ferrule ☑ Clipped Column ☑ New column

15

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Batch Number: 302918 Batch Start Date: 10/29/15 17:15 Batch Analyst: Knauf, James R

Batch Method: 3520C Batch End Date: 11/05/15 00:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	FirstAdjustpH
MB 280-302918/1		3520C, 8270D		7			1000 mL	1 mL	1-2
LCS 280-302918/2		3520C, 8270D		7			1000 mL	1 mL	1-2
280-76048-D-2	FW102015EQU001	3520C, 8270D	T	6	1503.5 g	504.2 g	999.3 mL	1 mL	1-2

Lab Sample ID	Client Sample ID	Method Chain	Basis	SecondAdjustpH	8270_LCS_Main 00026	8270_LCS_Supp 00134	8270Surrogate 00086	AnalysisComment	
MB 280-302918/1		3520C, 8270D		11-12			1 mL	same as batch 301766	
LCS 280-302918/2		3520C, 8270D		11-12	1 mL	1 mL	1 mL	same as batch 301766	
280-76048-D-2	FW102015EQU001	3520C, 8270D	T	11-12			1 mL	same as batch 301766	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76048-2

SDG No.:

Batch Number: 302918 Batch Start Date: 10/29/15 17:15 Batch Analyst: Knauf, James R

Batch Method: 3520C Batch End Date: 11/05/15 00:15

Batch Notes	
Acid used for pH adjustment	1:1 H2SO4
Acid used for pH adjust Lot #	1:1 H2SO4_00044
Balance ID	24350888
Base used for pH adjustment	10N_NaOH
Base used for pH adjust Lot #	10N_NaOH_00071
Batch Comment	DV-OP-0008/7 H2O:N. Elga
Person's name who did the concentration	DLW & EJ
Time the first extraction ended 24hr	10.30.15 @ 1210
Time the first extraction started 24 hr	10.29.15 @1753
Na2SO4 Lot Number	0000112615_00006
NaCl Lot #	148298
Oven, Bath or Block Temperature 1	84 Celsius
Prep Solvent Lot #	MeCl2_Cycl_00245/247
Prep Solvent Name	MeCl2
Prep Solvent Volume Used	300 mL
Person's name who did the prep	James Knauf + John Arko (trainee) Pipette: N
Person's name who witnessed reagent drop	Reviewer: JK
Time the second extraction ended 24hr	10.31.15 @935
Time the second extraction started 24hr	10.30.15 @1530
Sufficient volume for MS/MSD?	no
Water Bath ID	A
Water Bath Temperature	84 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
phone 303-736-0100 fax 303-431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Nance	Site Contact: John Nance 505 321 7260	Date: 10/27/15	COC No: FWDAOCT15-01
John Nance	Tel: 505 835 7660	Lab Contact: Michelle Johnston	Carrier: Federal Express	1 of 1 COCs
6700 Jefferson Street NE Suite C3	Analysis Turnaround Time			Job No.
Albuquerque, NM 87109	Calendar (C) or Work Days (W) W			
505 835 7660 PHONE	TAT if different from Below 15			
	☐ 2 weeks			SDG No.
Project Name: Fort Wingate	☐ 1 week			
Site: Fort Wingate, New Mexico	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Explosives 8330B	Nitrate Nitrite 9056	Perchlorate 6860	TAL Metal6010C/6020A/7470A Total	TAL Metal6010C/6020A/7470A Diss.	Organochlorine Pesticides 8081A	Volatile Organic Compounds 8260C	Semivolatile Organics 8270D	ORO 8015C C24-C36	TPH-DRO 8015C C10-C28	TPH-GRO 8015C C6-C10	TCLP VOCs 1311/8260B	TCLP SVOCs 1311/8270D	Metals 6010C/6020A dissolved	TCLP Pesticides 1311/8081A	TCLP Herbicides 1311/8151A	pH 9045C	Ignitibility 1010	Sample Specific Notes:
TB-01-102015	10/27/2015	09:00	grab	W	1	N							1												Trip Blank
FW102015EQU001	10/27/2015	09:40	grab	W	18	Y	2	1	1	1	1	2	3	2		2	3								

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280-76048 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☒ Archive For 60 days after invoice

Special Instructions/QC Requirements & Comments:

0.5 STD:0 127 280ct15 Transfer

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
L. Hill L. Hill	CH2M HILL	10/27/15 15:00		TAD	0945 28Oct15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Do Not Lift Using This Tag

FedEx Express **Expanded Billable Stamp**

Use only for shipments within the U.S.
Saturday delivery available.

1 From Sundance Consulting

ORDER: 00823698

6700 Jefferson St. NE
Albuquerque, NM
(505) 321-7660

Package Weight

FedEx Priority Overnight®

Release Signature
For nonresidential deliveries.

Sign within the area framed by the arrows.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

For FedEx Use Only

Employee Number	Base Charges
Other	Total Charges

2 To *Shipment will not be accepted if address below is altered.*

M-10091 Rev. 3/10

SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

SATURDAY DELIVERY
Shipments tendered on Friday are delivered

FedEx
TRK# 0667 8087 7477 9739

WED - 28 OCT 10:30A
PRIORITY OVERNIGHT

80002
CO-US
DEN

XH WHHA

FID 789935 27OCT15 GUPA 539C3/401A/31D0

Login Sample Receipt Checklist

Client: Sundance Consulting, Inc

Job Number: 280-76048-2

Login Number: 76048
List Number: 1
Creator: Muniz, Ashley T

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	